

Exhibit D

1
2 UNITED STATES DISTRICT COURT
3 SOUTHERN DISTRICT OF NEW YORK

4 - - - - -
5 SECURITIES AND EXCHANGE
6 COMMISSION,

7 Plaintiff,

8 vs.

Case No.

20-civ-10832 (AT) (SN)

9 RIPPLE LABS, INC., BRADLEY
10 GARLINGHOUSE, and CHRISTIAN A.
11 LARSEN,

12 Defendants.
13 - - - - -

14 CONTINUED VIDEOTAPED DEPOSITION OF

15 [REDACTED], Ph.D.

16 New York, New York

17 Tuesday, May 10, 2022

18
19
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21 Reported by

22 JEFFREY BENZ, CRR, RMR

23 JOB NO. 211049
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May 10, 2022

1:12 p.m.

Continued Videotaped Deposition of [REDACTED]
[REDACTED] Ph.D., taken at Debevoise & Plimpton LLP,
919 Third Avenue, New York, New York, before
Jeffrey Benz, a Certified Realtime Reporter,
Registered Merit Reporter and Notary Public of the
State of New York.

A P P E A R A N C E S:

FOR THE PLAINTIFF:

U.S. Securities and Exchange Commission

100 Pearl Street

New York, New York 10004

BY: MARK SYLVESTER, ESQ.

ROBERT MOYE, ESQ. (remotely)

FOR DEFENDANT RIPPLE LABS:

Kellogg, Hansen, Todd, Figel & Frederick, P.L.L.C.

1615 M Street NW

Washington, D.C. 20036

BY: REID FIGEL, ESQ.

KYLIE KIM, ESQ.

ELIANA PFEFFER, ESQ.

CLAYTON MASTERMAN, ESQ. (remotely)

MICHAEL KELLOGG, ESQ. (remotely)

BRADLEY OPPENHEIMER, ESQ. (remotely)

A P P E A R A N C E S: (Ctd.)

FOR DEFENDANT BRADLEY GARLINGHOUSE:

Cleary Gottlieb Steen & Hamilton LLP

2112 Pennsylvania Avenue, NW

Washington, D.C. 20037

BY: JORGE BONILLA LOPEZ, ESQ. (remotely)

FOR DEFENDANT CHRISTIAN A. LARSEN:

Paul, Weiss, Rifkind, Wharton & Garrison LLP

1285 Avenue of the Americas

New York, New York 10019

BY: MARTIN FLUMENBAUM, ESQ. (remotely)

CARLY LAGROTTERIA, ESQ. (remotely)

ALSO PRESENT:

DMITRY ZVONKOV, Videographer

DEBORAH McCRIMMON, Ripple Labs, Inc.

ELIZABETH GOODY, S.E.C.

1 [REDACTED]
2 THE VIDEOGRAPHER: We are on the
3 record. Today's date is May 10, 2022. The
4 time on the video screen is 1:12 p.m.

5 This is Video 1 in the deposition of
6 Dr. [REDACTED] in the matter of the SEC
7 versus Ripple Labs, Inc., et al., in the
8 U.S. District Court, Southern District of
9 New York, Case Number 20-CIV-10882
10 (AT) (SM).

11 This deposition is being taken at
12 919 Third Avenue, New York, New York.

13 My name is Dmitry Zvonkov. I'm the
14 videographer with TSG Reporting. The court
15 reporter is Jeff Benz, also with TSG.

16 All appearances are on the
17 stenographic record. Would the reporter
18 please swear in the witness.

19 [REDACTED], Ph.D.,
20 called as a witness, having been first
21 duly sworn by Jeffrey Benz, a Notary
22 Public within and for the State of New
23 York, was examined and testified as
24 follows:
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EXAMINATION BY MR. FIGEL:

Q. Good afternoon, Dr. [REDACTED] Could you please state your name for the record.

A. [REDACTED].

Q. And any reason you can't give truthful and accurate testimony today?

A. I don't believe so, no.

Q. You've submitted an expert -- an opening expert report, or rebuttal report and a supplemental report in connection with this case.

Is that correct?

A. Yes, that's correct.

Q. And just for the record, I think we're going to be referring to at least all of them.

I show you what has been previously marked as Exhibit 1 from your prior deposition.

So I'll put that before you so you can have access to it.

MR. FIGEL: And then -- do we have the exhibit sticker? I don't need this.

Q. And just so the record's clear, that is the opening amended report that you submitted in this case?

1

[REDACTED]

2

Is that correct?

3

A. It appears to be yes.

4

Q. And since we have three reports, can

5

we agree that for the purposes of the

6

deposition, that we'll refer to that report as

7

your opening report?

8

A. That's satisfactory to me.

9

MR. FIGEL: Okay. And so just so the

10

record's clear, the opening report will be

11

the amended expert report of Dr. [REDACTED]

12

dated October 6, 2021.

13

Q. All right. I'd now like to show you

14

what's -- we previously marked as Exhibit 2.

15

Is this the supplemental report that

16

you -- I'm sorry, this was marked as Exhibit 13?

17

Is that right?

18

Wasn't this Exhibit 2?

19

I'm sorry, Dr. [REDACTED] Can I borrow

20

that back from you for a second.

21

It's Exhibit 2 on yours.

22

All right. And is Exhibit 2 the

23

rebuttal report that you issued in this case on

24

November 12, 2021?

25

A. It appears to be, yes.

1 [REDACTED]
2 Q. And again, so the record's clear, can
3 we agree that when I refer to your rebuttal
4 report, we're referring to Exhibit 2?

5 A. That's satisfactory to me.

6 Q. Okay.

7 And I now show you what's been marked
8 as Exhibit 13.

9 (Dr. [REDACTED] February 28, 2022,
10 supplemental expert report was marked [REDACTED]
11 Exhibit 13 for identification, as of this
12 date.)

13 Q. And is this the supplemental expert
14 report that you issued on February 28, 2022?

15 A. It appears to be.

16 Q. And again, for the record, can we
17 agree that when I refer to this supplemental
18 report, we'll be -- I'll be referring to
19 Exhibit 13?

20 A. That's fine with me.

21 Q. All right. Now, in your opening
22 report, you offer the opinion that you found,
23 and -- I'm quoting -- Statistically significant
24 evidence that XRP prices react to new
25 information about Ripple's actions.

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Correct?

A. That -- I -- I believe so.

Q. I'll represent to you I'm trying to quote from paragraph 12A. We can -- we can let the report speak for itself.

MR. SYLVESTER: And just perhaps before we go too far down this road, I just want to note for the record that, of course, we're here pursuant to the Court's order of April 19, 2022, in which Judge Netburn stated -- I'll quote in part -- Expert discovery is reopened until May 13, 2022, for the limited purpose of, one, redeposing Dr. ██████████ regarding the analysis in his supplemental report, limited to four hours. Which he continues, close quote.

So, I'll let you have a little bit of leeway, but I want to put on the record right away that the purpose of this deposition is to explore Dr. ██████████ supplemental analysis as set forth in his supplemental report.

It's not to reopen his initial

1 [REDACTED]
2 deposition to give defendants more time to
3 question when they used, I believe, 6 hours
4 and 58 minutes for the initial deposition.

5 So, I'm happy to hear the question,
6 and we can take it one question at a time,
7 but I just want to put on the record right
8 away that we intend to direct Dr. [REDACTED] to
9 answer questions within the scope of the
10 Court's order and -- or rather, to permit
11 him to answer questions within the scope of
12 the Court's order, and direct him not to
13 answer any questions that fall outside that
14 scope.

15 MR. FIGEL: I understand your
16 position, and just so the record's clear,
17 we intend to examine him about his
18 supplemental report.

19 But as I believe we'll establish
20 through questioning, and I intend to
21 establish through questioning, the facts,
22 data, methodology, and work papers, work
23 product that he created in connection with
24 the supplemental report, is on all fours
25 with the work he did with his original

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report.

And, as a result, we view it as impossible to not ask questions about certain aspects of his original report -- I think I've got determination right, in connection with the supplemental report.

So you can make objections. You can direct however you like, but our position is, we will be questioning him about his opening report, and we believe it's fully consistent with the judge's order that allows us to examine him with respect to the conclusions and methodologies in his supplemental report.

MR. SYLVESTER: Okay. As I said, I hear your position, we can take it one question at a time.

Q. All right. Do you recall that I was asking you about the conclusion you reached in paragraph 12A of your opening report?

A. Yes, I recall.

Q. And that conclusion was based on your finding of a statis-- significant statistical correlation between certain public announcements

1 [REDACTED]
2 made by Ripple, and price returns of XRP, as
3 reported in public sources.

4 Is that correct?

5 MR. SYLVESTER: Let's stop right here.
6 Objection. How is this related to his
7 supplemental analysis?

8 MR. FIGEL: Well, I don't have to
9 preview for you the questions I'm going to
10 ask. But he found in his opening report,
11 as I just believe I accurately
12 summarized -- let me just make sure -- do
13 we have an answer to the question yet, or
14 you're not going to let him answer?

15 MR. SYLVESTER: Yeah, I lodged an
16 objection. He answered the question, Do
17 you recall that I was asking you about the
18 conclusion that you reached in your opening
19 report.

20 MR. FIGEL: And you didn't permit him
21 to answer my question.

22 So I'll -- I'll have a colloquy with
23 you, but we're not going to do this
24 question by question.

25 He has a methodology in which he made

1 [REDACTED]
2 findings in his original report, which we
3 believe carries over and are relevant to
4 his supplemental report, and I fully intend
5 to question him about the methodology in
6 his original report that bears on his
7 supplemental report.

8 MR. SYLVESTER: And -- and we would
9 object to that. You had seven hours to
10 question him about his methodology in his
11 opening report. That's not what this
12 deposition is for.

13 You -- you have an entire report
14 before you that you can ask -- you're free
15 to ask him any questions on his
16 supplemental report. You're free to ask
17 him any questions that you think are tied
18 to his supplemental report, but what we've
19 started on is his initial report, which,
20 again, you had 7 hours to ask questions on
21 and did use 6 hours and 58 minutes, so I --
22 I do object to this line of questioning.

23 If we can move to the supplemental
24 report, then perhaps we can -- you can
25 demonstrate how this is of relevance to --

1 [REDACTED]
2 and within the bounds of the Court's order,
3 but sitting here right now, I don't see it.

4 MR. FIGEL: Well, Mr. Sylvester, with
5 all respect, I don't have to demonstrate
6 anything to you, you can make your
7 objections, I'm going to ask my questions.

8 I've proffered to you the reasons why
9 questions about his opening report are
10 relevant to his supplemental report. And
11 you can then do what you want, but I'm not
12 going to change my questions or the scope
13 of what I intend to ask him about based on
14 what you think the permissive --
15 permissible scope of the Court's order is.

16 Q. All right.

17 MR. FLUMENBAUM: And I want to note
18 for the record that it is -- in his own
19 supplemental report, he refers to the
20 methodology that he filed in his amended
21 report. And -- and maybe you can establish
22 the relevance of that through that
23 question.

24 And he refers to his first report in
25 his supplemental report. And you're

1 [REDACTED]
2 wasting time, Mr. Sylvester, which I'm
3 going to ask the court reporter to take
4 away -- to add back to the four hours.

5 Just either object -- no more
6 speeches. We understand your position, but
7 enough.

8 MR. SYLVESTER: Mr. Flumenbaum --

9 MR. FLUMENBAUM: You're just stopping
10 the deposition --

11 MR. SYLVESTER: Mr. Flumen--

12 MR. FLUMENBAUM: -- which is your goal
13 here, and you've been sanctioned in order
14 to get here so just -- you know, just stop.

15 MR. SYLVESTER: Mr. Flumenbaum, that
16 itself was a speech. So thank you for
17 that.

18 Q. All right. So let me -- I believe
19 Mr. Sylvester objected -- Sylvester objected
20 before you answered my question. The conclusion
21 in your opening report was that you found a
22 significant statistical correlation between
23 certain public announcements made by Ripple and
24 price returns of XRP as reported from public
25 sources.

1

2 Is that correct?

3 A. I -- I -- that sounds correct, yes.

4 Q. All right. Now, directing your
5 attention to the rebuttal report, in your
6 rebuttal report, your opinions were limited to
7 various observations and arguments that you had
8 in which you disagreed with the expert report
9 submitted by Allen Ferrell.

10 Is that correct?

11 A. My rebuttal report, I was asked to
12 respond to certain arguments put forward by
13 Dr. Ferrell.

14 Q. And you didn't offer any new opinions
15 in support of your own analysis in the opening
16 report, in the rebuttal report.

17 Correct?

18 A. I -- I would say that that's correct.

19 Q. All right. Now, directing your
20 attention to the supplemental report, in the
21 supplemental report, you offer an opinion for
22 the first time that but for the impact of news
23 and public statements related to Ripple, the
24 U.S. dollar price per XRP token, quote, would
25 rarely have exceeded 2 cents per unit.

1

2 Is that correct?

3 A. Are you quoting from the report?

4 That's --

5 Q. Yes.

6 A. That sounds correct, but I just --

7 Q. Yes.

8 A. Yes, that's correct.

9 Q. And you go on to say, But for the news
10 related to Ripple on just 23 days, and I'll --
11 we'll put a pin in the 23 days -- the price of
12 XRP would rarely have surpassed about a penny,
13 and it would never/reached the actual high of
14 \$3.38.

15 Is that correct?

16 A. Can you just -- I just want to make --
17 where are you exactly?

18 Q. Well, I'm summarizing.

19 But if you want to look at the
20 paragraph.

21 So if you look at paragraph 9, the
22 second bullet point, the last sentence.

23 A. Yes. Correct.

24 Q. Now, is it a fair summary of the
25 opinions expressed in your supplemental report

1 [REDACTED]
2 that but for what you believe is the positive
3 price impact that certain Ripple announcements
4 had on the price of XRP, as of October 28, 2020,
5 the market price per unit of XRP would have been
6 2 cents or less at a time when the actual market
7 price for XRP was approximately 24 cents?

8 A. You put a particular date there.

9 October --

10 Q. -- 28, 2020, which I believe was
11 the --

12 A. Right.

13 Q. -- last date of your study.

14 A. So I'm sorry, Mr. Figel. Would you
15 repeat the question.

16 Q. Yeah. Your -- your opinion as
17 expressed in the supplemental report was that
18 but for what you believe to be the statistically
19 significant positive impact of certain Ripple
20 announcements on the price of XRP as of
21 October 28, 2020, the market price per unit of
22 XRP would have been 2 cents or less at a time
23 when the fair market price or the market price
24 of XRP was 24 and a half cents.

25 Correct?

1 [REDACTED]
2 A. I'm not sure that I know exactly what
3 the counterfactual price was on October 28,
4 2020, according to Model 2. You may very well
5 be correct.

6 But sitting here right now, I don't
7 know that I remember the number.

8 Q. Did you review your supplemental
9 report before your deposition today?

10 A. I did.

11 Q. All right. Just so we are clear -- we
12 asked this last time, but I want to make sure
13 the record is clear on this. The opinions you
14 express your opening report, the rebuttal
15 report, and the supplemental report contain all
16 the affirmative opinions you intend to offer in
17 this case.

18 Is that correct?

19 A. I believe that's correct. Of course,
20 the -- the rebuttal report, you might say,
21 contains rebuttal opinions rather than
22 affirmative opinions. But that notwithstanding,
23 I -- I think that's correct, yes.

24 Q. Is it your testimony that the rebuttal
25 report contains rebuttal opinions?

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MR. SYLVESTER: Objection to the
extent it calls for a legal conclusion.

A. They contain opinions. You inserted
the word "affirmative opinion." I don't know --
I don't know how to characterize the rebuttal
report as whether that contains rebuttal
opinions or affirmative opinions. It contains
opinions.

Q. Well, does your -- does your
supplemental report include opinions that you
are expressing for the first time in this
litigation?

A. I would say that the supplemental
report contains opinions -- some new opinions,
yes. Prior to your supplemental report, you
never offered the opinion that but for the
impact of certain Ripple news announcements the
price per unit of XRP would never have risen
above 2 cents. You never offered that -- that's
an opinion you're offering in your supplemental
report.

Correct?

MR. SYLVESTER: Objection.

A. Well, you inserted the word "never."

1 [REDACTED]
2 I think I use words like "rarely."

3 But broadly speaking, you're correct
4 that the -- my opening report and rebuttal
5 report did not contain an opinion on the
6 counterfactual price level but for the news
7 of -- of Ripple.

8 Q. So the first time you're expressing an
9 opinion on the but-for price of XRP is in your
10 supplemental report.

11 Isn't that correct?

12 A. I would agree with that, yes.

13 Q. And your opening report, your rebuttal
14 report, and your supplemental report sets forth
15 all of the bases for the opinions you express in
16 those reports.

17 Correct?

18 A. Yes. I would agree with that.

19 Q. Has the SEC asked you to further
20 modify or amend your opening report in any way,
21 other than what's in the supplemental report?

22 A. No.

23 Q. You're not doing any work as you sit
24 here today as you were at the last deposition in
25 which you're planning to issue new opinions, or

1



2 further reports.

3 A. Related to this case?

4 Q. Correct.

5 A. Yes, that's correct.

6 Q. All right. Has the -- has the SEC

7 asked you to further modify or amend your

8 supplemental report in any way?

9 A. No. The SEC has not asked me that.

10 I don't know if now is a time to

11 mention, I spotted a typo when I was reviewing

12 the supplemental report. But I spotted it.

13 Q. Well, let's -- let's have you correct

14 the typo --

15 A. Okay.

16 Q. -- in your supplemental report so the

17 record is clear.

18 A. I believe it's footnote 13. It's just

19 a calculation. It reads, 0.01787 equals 0.1422.

20 That should have said 0.01422.

21 Q. Okay. Any other typos or errors in

22 your supplemental report that you're aware of?

23 A. Not that I'm aware of, no.

24 MR. SYLVESTER: Just a reminder to let

25 him answer the question -- finish the

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question.

THE WITNESS: I apologize.

Q. And are you doing any additional work that relates to the opinions expressed in your supplemental report or any of the methodologies or facts or data that you relied on in reaching those opinions?

A. No, I'm not.

Q. So you have no reason to further supplement or modify any of your three reports as you sit here today.

Correct?

A. That's correct. As I sit here today, I -- I have no reason and no expectation to modify or supplement any of these reports.

Q. Right. In connection with the preparation of your supplemental report, did the SEC ask you to analyze or evaluate any aspect of your prior opinions or the data that you collected that are not discussed or referred to in either your opening report or your rebuttal report?

A. I'm sorry, sir. May I hear that again?

1 [REDACTED]
2 Q. Sure. In connection with the
3 preparation of your supplemental report, did the
4 SEC ask you to analyze or evaluate any aspect of
5 your prior opinions or the data that you
6 collected that are not discussed or referred to
7 in either your opening report or your rebuttal
8 report?

9 MR. SYLVESTER: I'm going to object on
10 work product grounds. I -- to the extent
11 you can answer that question, I think it
12 goes solely to your assignment, and I'm
13 fine with that. But to the extent it goes
14 beyond that into communications with the
15 SEC, I'll object on work-product grounds.

16 Q. Why don't we start with yes or no.

17 A. Well, I'm -- I am struggling with the
18 language that this supplemental report is an
19 analysis using similar data from the opening
20 report. So if your question was did they ask me
21 to do an analysis on data in my opening report
22 for purposes of preparing the supplemental
23 report, I -- if I take those words literally, I
24 think the answer to that question is, yes, as
25 the supplemental report uses data from -- is an

1 [REDACTED]
2 analysis of data in the -- in the opening
3 report. But I may be misunderstanding your
4 question.

5 Q. Well, let's -- let's break it down.

6 Let's start with, did the SEC ask you
7 to analyze or reevaluate any of the opinions you
8 expressed in your opening report or your
9 rebuttal report in connection with the
10 preparation of your supplemental report?

11 MR. SYLVESTER: Objection.

12 A. My assignment as laid out in the
13 supplemental report does not involve revisiting
14 or revising prior opinions.

15 Q. And now the question is, did the SEC
16 ask you to reevaluate any of the opinions that
17 you expressed in your opening report or in your
18 rebuttal report in connection with the
19 preparation of the supplemental report?

20 MR. SYLVESTER: Objection.

21 A. No, they did not ask me that.

22 Q. All right. In your opening report at
23 paragraph 11, in your rebuttal report at
24 paragraph 4, and in your supplemental report at
25 paragraph 6, you reserve the right to modify or

1 [REDACTED]
2 supplement your conclusions.

3 Do you still reserve this right?

4 A. Well, I -- I don't believe I've waived
5 the right, so I suppose I reserve the right.

6 Q. And are you actively considering any
7 new information or conducting new analyses that
8 relate to either your opening report, your
9 rebuttal report or your supplemental report?

10 A. Sitting here today, I am not currently
11 actively working on additional analysis related
12 to this matter.

13 Q. Do you have any plans to do any
14 analyses or review the methodology or the
15 opinions in your opening report or your rebuttal
16 report?

17 A. Sitting here today, I have no such
18 plans.

19 Q. And any plans to review any aspect of
20 the methodology or the opinions in your
21 supplemental report?

22 A. Sitting here today, I have no such
23 plans.

24 Q. All right. Now, in connection with
25 the preparation of your supplemental report, did

1 [REDACTED]
2 you conduct any additional regression analyses,
3 other than the regression analyses that you
4 conducted for the opening report?

5 A. No, I did not.

6 Q. So the opinions expressed in your
7 supplemental report are based on the exact same
8 regression analyses that you conducted in
9 connection with your opening report.

10 Is that correct?

11 A. You used the words, "are based on." I
12 might use words, utilize the same regression
13 analysis from the opening report.

14 Q. Give me just a second.

15 So let me try it with your
16 reformulation.

17 So the opinions expressed in your
18 supplemental report are based on the same -- the
19 exact same regression analyses that you utilized
20 in connection with your opening report.

21 Is that correct?

22 A. My supplemental report, broadly
23 speaking, has two threads of opinion, if you
24 will, one of which utilizes regression analyses,
25 which were this very same regression analyses in

1

2 my opening report.

3

4 The other thread of opinion in my
5 supplemental report does not utilize any
6 regression analyses at all.

7

8 Q. And when you say the second thread,

9 you're referring to the investment return that

10 would have been realized by an XRP purchaser who

11 purchased the day before an event and held for

12 28 days? Just so the record's clear.

13

14 A. For various days, including 28 days,

15 but yes, that -- that's the thread that I had in

16 mind.

17 Q. Now, when you say, with respect to the

18 first thread, that you used the very same

19 regression analyses, by "very same," you mean

20 without modifications or changes or additional

21 work.

22 Correct?

23 A. Well, there's -- there's additional

24 work, but not additional regression analysis.

25 Q. So the 20 models are the same

26 20 models you used -- the 20 model -- withdrawn.

27 The 20 models you used in your opening

28 report are the same 20 models that you rely on

1 [REDACTED]
2 in your supplemental report.

3 Correct?

4 A. Yes, that's correct.

5 Q. And the results of those 20 models are
6 unchanged with respect to the opinions you reach
7 in your supplemental report.

8 Correct?

9 A. Yes, that's correct.

10 Q. Did you consider any additional events
11 related to XRP or Ripple, other than the events
12 you identified in your opening report, in
13 connection with the opinions you offer in your
14 supplemental report?

15 A. No, I did not.

16 Q. So you didn't change or modify or
17 supplement any of the facts or data related to
18 XRP, or Ripple, other than what you relied upon
19 in your opening report.

20 Is that correct?

21 MR. SYLVESTER: Objection.

22 A. That sounds correct. Yes.

23 Q. Is there anything about it that sounds
24 incorrect?

25 A. There was just so many words, but I

1 [REDACTED]
2 didn't -- I didn't rerun aggressions -- rerun
3 regressions, modify regressions, or identify
4 additional events or news beyond what I
5 discussed in my opening report.

6 Q. And the XRP market prices that you
7 used in your opening report are the same XRP
8 market prices that you used in connection with
9 the opinions you offer in your supplemental
10 report.

11 Correct?

12 A. Yes, that's correct.

13 Q. Other than the calculation of the
14 counterfactual XRP price that's set forth in
15 your supplemental report, did you perform any
16 other analyses, other than what you performed in
17 connection with your opening report?

18 MR. SYLVESTER: Objection.

19 A. Well, there's -- there's a second
20 thread of opinion, as we've discussed.

21 Q. Let -- let's -- apologies, that's my
22 fault.

23 Let's leave the second -- what you
24 call the second thread to the side. I'm talking
25 just about the counterfactual XRP price that you

1 [REDACTED]
2 opine about in your supplemental report.

3 And the question is, other than the
4 methodology that allowed you to offer the
5 opinion that the price of XRP rarely would have
6 gone above 2 cents per unit, whatever the -- the
7 arithmetical backing out of the -- what you call
8 the abnormal price returns, were there any other
9 analyses that you did in connection with
10 reaching the opinion you offer with respect to
11 what you call the first thread of your
12 supplemental report?

13 MR. SYLVESTER: Objection.

14 A. I -- I'm -- I'm just trying to digest
15 the -- the -- I'm just not sure I understand the
16 question. I'm sorry.

17 Q. All right. Let's -- let's see if we
18 can break it down.

19 We'll go through this in considerable
20 detail, but at a high level, can we agree that
21 the opinion you express in your supplemental
22 report, with respect to the counterfactual price
23 of XRP, was effectively backing out what you
24 consider to be abnormal positive price returns
25 that were correlated with various Ripple events,

1 [REDACTED]
2 and recalculating what the price of XRP would
3 have been but for those events in those price
4 impacts?

5 A. Yes, I would -- I would agree with
6 that.

7 Q. And I'm sure it's very complicated,
8 but -- but --

9 A. I -- that --

10 Q. -- it can be simplified to your
11 backing out specific price returns and price
12 increases, to take it from what the market price
13 was on or about October 28, 2020, to the 2 cents
14 that -- that you offer. Correct?

15 MR. SYLVESTER: Objection.

16 A. Your summary, I think, was very fair.
17 Again, I don't -- just don't remember what the
18 counterfactual price is on that particular date,
19 so I -- I don't know that it was 2 cents.

20 But -- but your summary up to that
21 point, I think, was -- was fair.

22 Q. All right. Other than that exercise
23 in which you backed out what you consider to be
24 the abnormal price returns, did you conduct any
25 other analyses that you relied on in connection

1 [REDACTED]
2 with what you call the first thread of your
3 opinion as expressed in your supplemental
4 report?

5 MR. SYLVESTER: Objection.

6 A. Well, having backed out the -- the
7 abnormal returns attributable to those events,
8 the result then is a counterfactual price
9 history, and I then do very simple analysis to
10 calculate certain summary statistics on those
11 counterfactual price histories.

12 So, for instance, I calculate the
13 fifth percentile price or the median price, so
14 on and so forth.

15 But to get to the counterfactual price
16 itself, again, I think that I -- I think that
17 your summary was fair.

18 Q. All right. And you didn't offer a
19 counterfactual price for XRP for any time period
20 in either your opening report or your rebuttal
21 report. Correct?

22 A. That's correct.

23 Q. And you didn't attempt to quantify the
24 impact of any announcement by Ripple on the
25 market price or the price return of XRP in

1 [REDACTED]
2 connection with your opening report or your
3 rebuttal report. Correct?

4 A. No, I don't think that's correct.

5 Q. Okay. What respects is that not
6 correct?

7 A. Well, I believe that my opening report
8 does present information on the impact of these
9 Ripple events on XRP prices.

10 Q. With all respect, that wasn't my
11 question.

12 A. I'm sorry.

13 Q. I'll ask it again.

14 You did not attempt to quantify the
15 impact of any announcement by Ripple on the
16 market price or the price return of XRP in
17 connection with your opening report or your
18 rebuttal report. Correct?

19 A. I -- I don't know that I -- I -- I can
20 agree with that. The opening report does
21 present a demonstration of the quantum of impact
22 of Ripple news on XRP prices. So I'm not quite
23 sure that I can agree with your
24 characterization.

25 Q. So why don't we turn to -- I believe

1 [REDACTED]
2 it's Exhibit 1 of your opening report.

3 And can you please identify for us
4 where in that report you attempted to quantify
5 the impact of any announcement by Ripple on
6 either the market profile of XRP or the price
7 return of XRP.

8 MR. SYLVESTER: Objection.

9 A. Well, in -- I just want to get the
10 section -- Section 6 of the opening report
11 contains a number of charts that show the
12 average impact of the news items that I -- that
13 I refer to in Section 6 on XRP prices.

14 Q. So can -- why don't -- just so the
15 record's clear, why don't you give us a page or
16 a chart number so we can --

17 A. As an example, Figure 31, on page 55.

18 Q. And where in Figure 31 do you quantify
19 the price impact of any Ripple announcement on
20 the -- either the market price of XRP or the
21 price return of XRP?

22 A. Well, Figure 31 presents the average
23 return on XRP prices following the -- what did I
24 call it? The select -- the select events, which
25 is the combination of milestones, customer

1 [REDACTED]
2 product and some other categories.

3 That's what Figure 31 is presenting.

4 So for instance, one can read from
5 Figure 31, that the average one-day impact, or
6 average one-day return following those
7 particular news items is -- is a little more
8 than 3 percent.

9 And the average three-day return is --
10 is about 11 percent, and so on and so forth.

11 Q. Just to the record's clear, explain
12 what the 3 percent you just testified to is, is
13 based on.

14 A. It's the value of the blue line at --
15 where the X-axis says 1, reading that as a
16 little over 103, which would correspond to a
17 return of a little more than 3 percent.

18 Q. And what announcement by Ripple does
19 this 3 percent price increase refer to?

20 A. It's the average increase -- it is the
21 increase on average following all of the
22 announcements in the select category discussion,
23 which is the combination of milestones, customer
24 and product announcements, exchange listings,
25 commercial initiatives, and I think I'm

1 [REDACTED]
2 forgetting one.

3 Acquisition and investment.

4 Q. And those, what you just referred to,
5 are a number of categories. Correct?

6 A. Yes.

7 Q. And each of the categories has several
8 Ripple announcements within the category?

9 A. Yes, that's correct.

10 Q. And your select category, I believe,
11 included more than a hundred different events?

12 A. Yes, that's correct.

13 Q. And so your testimony is that
14 Figure 31 quantifies the impact of a -- of an
15 announcement by Ripple on the market price of
16 XRP?

17 MR. SYLVESTER: Objection.

18 A. No. I said the -- the average impact,
19 the average over those 105 -- or 113, however
20 many it was.

21 Q. It doesn't attempt to quantify the
22 impact of any single Ripple event on the price
23 of XRP. Correct?

24 MR. SYLVESTER: Objection.

25 A. No, it doesn't attempt to identify the

1 [REDACTED]
2 impact of any single Ripple event on XRP. It
3 does attempt to quantify the impact of this
4 category or superset of Ripple announcements on
5 XRP.

6 Q. It purports to quantify the average
7 return of a hundred different events on the
8 price of XRP --

9 MR. SYLVESTER: Objection.

10 Q. -- correct?

11 MR. SYLVESTER: Sorry.

12 A. Yes, I think that's correct.

13 Q. All right. Other than Figure 31, is
14 there anywhere else in your opening report where
15 you believe you have attempted to quantify the
16 impact of any announcement by Ripple on the
17 market price or price return of XRP?

18 A. Well, throughout this Section 6 of my
19 opening report, as I study different categories
20 of news, there is, I think in all cases, or at
21 least almost all cases, a chart which is
22 analogous in structure to Figure 31.

23 So, for example, there is a chart that
24 shows the average impact following the milestone
25 announcements or the average impact following

1 [REDACTED]
2 the customer and product announcements and so on
3 and so forth.

4 Q. But, again, each of those charts
5 reflect what you believe is the average price
6 impact of a series of events that you included
7 in a category on the price of XRP. Correct?

8 A. Yes, that's correct.

9 Q. Just so the record is clear, did you
10 attempt to quantify the impact of any specific
11 announcement by Ripple on the market price or
12 the price return of XRP in your opening report?

13 A. My opening report does not report the
14 impact of individual events, event by event, no.

15 Q. All right. And the total number of
16 Ripple events in your opening report is more
17 than 500. Is that correct?

18 MR. SYLVESTER: You can feel free to
19 refer to your report.

20 A. I believe that's correct. I think --
21 I want to say it was 514, if memory serves.

22 Q. And those 514 events were also the
23 same 514 events that you utilized in connection
24 with the opinions you expressed in your
25 supplemental report. Correct?

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A. Well, I didn't utilize all 514.

Q. But the reservoir, if you will, or the universe of Ripple events that your opening report and your supplemental report was based on was the same 514 events. Correct?

MR. SYLVESTER: Objection.

A. I would say that that's correct. Yes.

Q. And then just so the record is clear, you then excluded a number of categories and reduced the number of events to approximately a hundred. Correct?

MR. SYLVESTER: Objection.

Go ahead.

A. Yes, that's correct. I studied a -- a set of categories. I did not study all 514 events.

Q. And again, just so the record is clear, no new events in -- withdrawn.

You didn't consider any new events in your supplemental report, other than the events that were -- you considered in your opening report. Correct?

MR. SYLVESTER: Objection.

Go ahead.

1



2 A. Again, I think that's correct. Yes.

3 Q. And when you narrowed down the
4 categories to your select categories and reduced
5 the number of Ripple announcements from
6 approximately 514 to 100 in your opening report,
7 that's the exact limitation or exclusion of
8 Ripple announcements that you made in connection
9 with the work you did in your supplemental
10 report. Correct?

11 A. My supplemental report begins with
12 that same set. As I discuss in the supplemental
13 report, I excluded five of the exchange
14 listings, which I had also discussed in my
15 opening report. But broadly speaking, yes, I --
16 what you say is correct.

17 Q. And the date range in your opening
18 report, which I believe was May 5, 2014, through
19 October 28, 2020, was the same date range that
20 you utilized in your supplemental report.

21 Correct?

22 A. There would have been no change to
23 date ranges. Just to be clear, that date range
24 is covered -- is certainly covered by Model 1.
25 That date range may not have -- and was not

1 [REDACTED]
2 covered by every model.

3 But -- but there was no change to my
4 treatment of date ranges in the supplemental
5 report with respect to how they were treated in
6 the opening report.

7 Q. So now applying the 20 models that you
8 came up with in your opening report to the
9 categories and the event days that you
10 considered, it's the same analysis in the
11 supplemental report. Correct?

12 In other words, it's the same 20
13 regression models applied to the same events,
14 with the exception of the 5 that you just
15 testified you excluded in your supplemental
16 report. Correct?

17 MR. SYLVESTER: Objection.

18 Go ahead.

19 A. I -- I did not modify or alter the
20 regression models, and I did not add new events
21 or recategorize events between my opening report
22 and my supplemental report.

23 Q. And the purpose of the 20 models in
24 both the opening report and the supplemental
25 report was to identify statistically significant

1 [REDACTED]
2 abnormal returns. Correct?

3 MR. SYLVESTER: Objection.

4 Go ahead.

5 A. Each of those models can be used and
6 was used to identify statistically significant
7 abnormal returns.

8 Q. And the results of applying the 20
9 models to the categories and the announcements
10 that you applied them to resulted in the exact
11 same identification, model by model, of
12 statistically significant abnormal price returns
13 for XRP. Correct?

14 MR. SYLVESTER: Objection.

15 Go ahead.

16 A. I would say that, yes, that's correct.

17 Q. All right. Can I direct your
18 attention now to paragraph 4 of your
19 supplemental report.

20 A. Yes.

21 Q. Can you just read paragraph 4 into the
22 record, please.

23 A. Since submitting the [REDACTED] rebuttal
24 report, I have been asked by the SEC to provide
25 additional quantification of the economic

1 [REDACTED]
2 significance of the impact that certain news
3 related to Ripple had on XRP prices.

4 Q. You stated that the SEC asked you to
5 provide additional quantification of the
6 economic significance of Ripple news events on
7 the price of XRP. Correct?

8 A. That is what I wrote, yes.

9 Q. But you didn't provide any
10 quantification of the economic significance of
11 the impact that certain news related to Ripple
12 had on XRP prices in either your opening report
13 or your rebuttal report. Correct?

14 MR. SYLVESTER: Objection.

15 A. As I testified, no, I don't think
16 that's correct. I did provide quantification of
17 the impact of Ripple events on XRP prices in my
18 opening report.

19 Q. Well, other than what we just went
20 through in which you identified certain charts,
21 where you identified the average price returns
22 of categories of events on XRP prices, you
23 didn't do any quantification. Correct?

24 MR. SYLVESTER: Objection.

25 Q. We've been through this. You've

1 [REDACTED]
2 identified all the quantification that you
3 believe you did in your opening report with
4 respect to the economic impact of a Ripple event
5 on an XRP price. Correct?

6 A. The -- the opening report was meant to
7 investigate whether there was a link between
8 Ripple Labs and the XRP market.

9 That was the purpose of the opening
10 report. In doing that, there is quantification
11 of the impact of those categories on Ripple
12 prices. But if your question is, besides --
13 besides the quantification that I did, did I do
14 any other quantification, the answer, of course,
15 is no.

16 Q. And is it a fair summary that the
17 opinion you expressed in your opening report was
18 that you were able to reject the null hypothesis
19 of a -- of independence between Ripple
20 announcements, and XRP prices?

21 A. That sounds correct, yes.

22 Q. In order to reach that opinion, it was
23 unnecessary for you to quantify the impact of
24 any specific Ripple announcement on a particular
25 price impact of XRP on a -- on a -- on a

1 [REDACTED]
2 particular day.

3 Correct?

4 MR. SYLVESTER: Objection.

5 A. I'm struggling with that a little bit.

6 Q. All right. I'll withdraw the
7 question. Let me ask it again.

8 In order to reject the null hypothesis
9 in your opening report, it was unnecessary for
10 you to quantify the price impact that any
11 announcement by Ripple had on XRP.

12 Correct?

13 A. I -- I'm still struggling with that.

14 In order to test the hypothesis, I
15 have to calculate an abnormal return and
16 evaluate its statistical significance. So -- so
17 I had to, in your words, quantify the impact of
18 news on prices.

19 I didn't -- I didn't have a fulsome
20 reporting of those impacts in the opening report
21 because it wasn't necessary to have a fulsome
22 reporting of those impacts.

23 But your question was, I think, did I
24 calculate them, and it was a necessary step, in
25 conducting the work of the opening report, to

1 [REDACTED]
2 make those calculations. There's -- there's no
3 way to avoid it.

4 Q. And why was it unnecessary to report
5 the specific price impact of Ripple
6 announcements on the price of XRP in order to
7 reject the null hypothesis, as you did in your
8 opening report?

9 A. Well, it was unnecessary, or --
10 because I -- I was about to say it was
11 unnecessary because it wasn't necessary; that's
12 not a very helpful answer.

13 I -- the report, the opening report,
14 focused on establishing and testing whether
15 there was a link between Ripple Labs and XRP
16 prices.

17 So the opening report, you know, goes,
18 I think, to -- to great lengths to explain the
19 statistical properties of that test and the
20 various statistical results around that test.

21 I -- all I can say is it didn't strike
22 me as necessary to then have tables and tables
23 and tables showing actual -- you know, showing
24 the abnormal returns on different dates and --
25 and tying them back to particular Ripple events.

1 [REDACTED]
2 It just didn't strike me as necessary to do.

3 All -- all of that information is
4 contained in the code and the models, and the
5 information behind the scenes, if you will, in
6 that report, but I -- it didn't -- I -- I didn't
7 see any benefit to having tables and tables of
8 such numbers in the opening report.

9 Q. The reason that there -- it was
10 unnecessary was because the methodology you used
11 in your opening report was to look at categories
12 of news events and determine whether you could
13 correlate those news events with abnormal price
14 returns for XRP at a higher incidence, a higher
15 level of correlation, than you would have
16 expected to find by random chance.

17 Correct?

18 MR. SYLVESTER: Objection.

19 A. I -- much of what you said is -- is
20 true. But you said it wasn't -- I mean, again
21 to -- to look at a -- a category is simply a set
22 of events.

23 To look at a category and determine
24 whether there is a statistically significant
25 correlation between the events of that category

1 [REDACTED]
2 and XRP prices requires, as a necessary step,
3 that you calculate abnormal returns on every
4 day, and -- and think about events on every day.

5 So it's -- it's a -- it's a necessary
6 step. It was not then necessary as -- as output
7 or presentation, as I said, to have table after
8 table after table saying, Model 1 through 20,
9 here's the abnormal return on the day that they
10 escrowed 55 billion tokens or the day they got
11 funding Round A and so on and so forth.

12 So I agree that it wasn't necessary as
13 a matter of -- of presentation. But I don't see
14 how I could have done the calculations in the
15 opening report without the intermediate steps of
16 calculating abnormal returns.

17 Q. Was it material to the opinion you
18 reached in your opening report as to which of
19 the Ripple announcements was correlated with a
20 statistically significant abnormal price return
21 of XRP?

22 A. The nature of the Ripple announcements
23 was material to my opinion, as -- as we
24 discussed, I think, last time.

25 The reason I tested certain categories

1 [REDACTED]
2 and not others was because the nature of the
3 news made the test more economically meaningful
4 than some other news.

5 So to me, it was material to test
6 milestones and customer announcements and so on
7 and so forth. It was not material to test
8 general market commentary about the state of
9 crypto markets.

10 So the nature of the news was material
11 in order for me -- in order for me to reach my
12 opinions in the opening report.

13 Q. That's not my question. Let's focus
14 on a single category.

15 A. Okay.

16 Q. Call it milestones. I don't want to
17 get hung up on the details.

18 But within the milestone category,
19 there was a large -- a number of XRP -- of
20 Ripple announcements.

21 Correct?

22 A. Correct.

23 Q. Right. And based on your regression
24 analyses, you could predict that if the
25 correlation was random, how many of those Ripple

1 [REDACTED]
2 announcements would correlate to abnormal price
3 returns.

4 Correct?

5 A. Essentially, yes.

6 Q. And because, with respect to certain
7 of those categories, you found a higher number
8 of correlations than you would have expected by
9 random chance, you concluded that there was a
10 statistically significant correlation.

11 Correct?

12 A. Again, without quibbling over every
13 word, broadly, yes, I think that's -- that's
14 correct.

15 Q. And that -- again, without quibbling
16 over every word -- was the basis on which you
17 rejected the null hypothesis.

18 Correct?

19 MR. SYLVESTER: Objection.

20 A. That -- that was certainly a basis
21 on -- yeah, yes, that was the basis on which I
22 rejected the null hypothesis of statistical
23 independence, yes.

24 Q. And hypothetically, if there were
25 20 Ripple's announcements in a category, and

1 [REDACTED]
2 based on your regression analyses, you would
3 have expected two of them to be correlated with
4 a statistically significant abnormal price
5 return, and you found that there were five,
6 instead, and that was a statistically
7 significant number, that would be a basis for
8 you to reject the null hypothesis.

9 Correct?

10 A. Yes, especially if the set of
11 20 events that we're talking about was of some
12 economic interest, as opposed to, as I said,
13 20 articles written by the New York Times about
14 the crypto market.

15 But, as long as it's an interesting
16 set of 20 announcements, yes, I would agree with
17 what you said.

18 Q. And it didn't matter which 5 of the 20
19 were correlated with a statistically significant
20 price return.

21 Correct?

22 MR. SYLVESTER: Objection.

23 A. That's correct. It -- it wouldn't
24 have mattered which 5 of the 20. Yes, I would
25 agree with that.

1 [REDACTED]
2 Q. All right. Now, turning to the
3 opinion in your supplemental report, again, just
4 for terminology, can we agree that the opinion
5 that you offer is the counterfactual price of
6 XRP but for the impact of certain announcements
7 by Ripple?

8 A. I agree that one thread is based on
9 that, yes.

10 Q. Thread 1, yes.
11 But let's just agree that unless I
12 specifically address what you refer to as
13 Thread 2, we're talking about Thread 1.

14 MR. SYLVESTER: Objection.

15 A. I -- okay. I --

16 Q. They're very different methodologies.
17 Correct?

18 A. They are very different methodologies.

19 Q. So my questions, unless I tell you
20 differently, relate to Thread 1.

21 A. I -- I will try to -- try to bear that
22 in mind.

23 Q. Okay.

24 All right. So the first step for you
25 in calculating the counterfactual price of XRP

1 [REDACTED]
2 was to identify those days in which you believe
3 the market price reflected what you believed was
4 a statistically significant positive return.

5 Correct?

6 A. The -- I just want to -- the first
7 step was -- I remember -- I don't want to get
8 hung up on the word "first."

9 I'm sorry, could you repeat the
10 question?

11 Q. The first step for you, in trying to
12 calculate the counterfactual price of XRP, was
13 to identify those days in which you believed the
14 market price reflected a statistically
15 significant positive return.

16 Correct?

17 A. Certainly a step. I don't know that I
18 want to hang my hat on the word "first," but a
19 step was to identify such days, yes.

20 Q. All right. And just so the record is
21 clear, what do you mean when you say you were
22 looking at price returns?

23 A. I mean that I was looking at the
24 change in the log of price, which is a common
25 transformation in academic studies to measure

1 [REDACTED]
2 the return on price.

3 Q. What do you mean by "log price"?

4 A. You can take any positive number. You
5 can take the natural log of it. So we have
6 prices on every date. We take the natural log
7 of those prices. Then we take the difference,
8 just one minus the other, to get the change in
9 the log of the price. And that is a measure of
10 the return on the price.

11 Q. And what's the difference between
12 return, as you just defined it, and increase in
13 price?

14 A. Well, it depends on how sort of
15 pedantic we want to be. An increase in price
16 might refer only to positive returns. An
17 increase in price could be calculated as the
18 price on one day minus the price on another day.
19 So -- so I would say that talking about the
20 increase in price could mean -- could mean
21 different things.

22 Q. Well, let's break it down.

23 Assume that on Day 1, the price is
24 50 cents and on Day 2 the price is 55 cents.

25 Is there a difference between the

1 [REDACTED]
2 5-cent increase and the log or the price return
3 that you just testified about?

4 MR. SYLVESTER: Objection.

5 A. Well, they will be different numbers.

6 Q. And why will they be different
7 numbers?

8 A. Because they're based on a different
9 calculation. One is .55 minus .5, and the other
10 is the log of .55 minus the log of .5.

11 Q. So one is a percentage -- one is an
12 absolute return; one a percentage return? Would
13 that be a way to simplify it?

14 A. One is -- I -- no. I -- when you --
15 when you say "absolute," I start to think
16 absolute value. One is a change in price, and
17 one is a percentage change in price.

18 Q. I thought that's what I said, but I'll
19 take your answer.

20 All right. Just on -- just on this
21 point, now on your methodology, now. The way in
22 which you identified statistically significant
23 price returns, was based on the 20 models.

24 Correct?

25 A. Well, each model produces a measure of

1 [REDACTED]
2 the abnormal return and a measure of the
3 statistical significance of the abnormal return.

4 Q. And the results, though, of the use of
5 those regression -- those 20 regression models
6 to identify statistically significant price
7 returns was identical. In other words, the
8 results didn't change with respect to the work
9 you did on your supplemental report from the
10 work you did on your opening report.

11 Correct?

12 MR. SYLVESTER: Objection.

13 A. I believe that's correct.

14 Q. All right. Now, let's go to Figure 3
15 of your supplemental report, which is on page 7.

16 With me?

17 A. Yes.

18 Q. All right. And down the vertical
19 axis, the first column is the 20 models that you
20 used in your opening report.

21 Correct?

22 A. Yes, that's correct.

23 Q. And the second column is the number --
24 when you say "number of significant events,"
25 that is the number of statistically significant

1 [REDACTED]
2 abnormal returns that were identified by using
3 each model.

4 Correct?

5 A. Very nearly correct. It's the number
6 of events that have positive significant
7 abnormal returns and no negative significant
8 abnormal returns.

9 So approximately correct. Right.

10 Q. I'll take your modification.

11 But the results, the yield, if you
12 will, of the number of such events that, as you
13 just described them, is different by model.

14 Correct?

15 A. Some models yield a different number,
16 yes.

17 Q. All right. And the range here is,
18 look like it's between 19 and 24.

19 A. Skimming it right now, I -- I think
20 that looks correct.

21 Q. And in your supplemental report, you
22 consistently use the number 23; and that's
23 because that was the number of statistically
24 significant event days that correlated with
25 Model 1.

1



2

Correct?

3

MR. SYLVESTER: Objection.

4

A. That's correct. For -- for

5

expositional purposes in this report and in my

6

opening report, I tend to focus on the results

7

of Model 1 to explain ideas.

8

Q. So in your report, you use the

9

number 23. I'm going to -- in the deposition,

10

I'm going to use the number 23. But we can

11

agree that the number 23 correlates to Model 1;

12

and if we were talking about Model 17, we'd be

13

talking about 20.

14

Correct?

15

A. Yes. I -- correct.

16

MR. FIGEL: Okay. I can't remember

17

when we started. We've been going about an

18

hour. Does anybody need a break?

19

MR. SYLVESTER: Dr. ?

20

THE WITNESS: I'm fine.

21

Q. All good? Okay.

22

If you would like one, just, you know,

23

indicate.

24

A. Thank you.

25

Q. All right. Earlier you testified that

1 [REDACTED]
2 the reason you tested certain categories and not
3 others in your opening report, because the
4 nature of the event or the news in that category
5 would make the test more economically meaningful
6 than for other categories.

7 Correct?

8 MR. SYLVESTER: Objection.

9 A. I believe I testified to that, yes.

10 Q. And what was the methodology by which
11 you determined whether news was economically
12 meaningful?

13 MR. SYLVESTER: Objection.

14 I'm going to instruct not to answer
15 that.

16 That goes to the methodology that's
17 strictly to his opening report. It's not
18 covered at all in his supplemental report.

19 MR. FIGEL: It is covered in
20 supplemental report. It's baked into the
21 analysis that he did. He replicated the
22 same analysis, and he excludes certain
23 events that we're going to talk about.

24 MR. SYLVESTER: That's a
25 methodological question you could have

1 [REDACTED]
2 asked him and I think did ask at length in
3 the first deposition. So we --

4 MR. FIGEL: Are you directing him not
5 answer the question?

6 MR. SYLVESTER: In accordance with the
7 Court's order, I am.

8 MR. FIGEL: We will reserve our right
9 to challenge that. I think it's quite
10 ill-advised, Mr. Sylvester, for you to
11 suggest that we can't follow up on that,
12 particularly when he just offered the
13 testimony in the context of this
14 deposition.

15 MR. SYLVESTER: I think with respect
16 to methodological questions that go to his
17 first report that you could and did examine
18 him about extensively in the seven hours
19 you had for his first report, that is
20 well -- well without the bounds that the
21 Court established repeatedly in her
22 opinion.

23 MR. FIGEL: All right. He volunteered
24 the explanation.

25 MR. FLUMENBAUM: The methodological

1 [REDACTED]
2 flaws, Mr. Sylvester, continue in the
3 supplemental report. And we should be
4 allowed to go into the -- the methodology
5 that he used for the supplemental report.
6 That is perfectly allowed by the -- by
7 the -- by the Court order.

8 Your objection just makes no sense
9 whatsoever. He's putting in a chart where
10 he talks about 23 events, and it's -- and
11 it's in Figure 3. Mr. -- Mr. Figel should
12 be allowed to ask him about those
13 23 events.

14 MR. SYLVESTER: Mr. Flumenbaum,
15 Mr. Figel, we had this conversation at a
16 meet-and-confer. It may be that we differ
17 as to what the meaning of the order is.

18 I read both defendants' brief seeking
19 to strike Dr. [REDACTED] report and seeking, in
20 the alternative, to question him on his
21 additional analysis in this report. We are
22 now beyond the additional analysis that he
23 conducted in this report.

24 If you want to question him as to
25 whether or not he took additional

1 [REDACTED]
2 methodological steps -- in fact, I think
3 you already have and he's answered no. So
4 I suggest we move on.

5 MR. FIGEL: Right. Well we reserve
6 our rights to seek appropriate relief. I
7 urge you to reconsider your direction,
8 because I don't think it's appropriate.

9 He offered that explanation in this
10 deposition today, and I'm asking a
11 follow-up question about it. I think
12 that's perfectly appropriate.

13 You want to direct him not to answer;
14 there will be consequences or we we'll seek
15 consequences.

16 You going to stand by the instruction?

17 MR. SYLVESTER: We disagree. We
18 reserve our rights as well.

19 Please proceed.

20 MR. FIGEL: I just want the record to
21 be clear. You're directing him not to
22 answer the question after this colloquy?

23 MR. SYLVESTER: I am.

24 MR. FIGEL: All right. I think, based
25 on that, we should take a break.

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THE WITNESS: Okay.

THE VIDEOGRAPHER: This ends Unit 1.

We're off the record at 2:18.

(Recess from 2:18 to 2:37.)

THE VIDEOGRAPHER: This begins Unit 2.

We're on the record at 2:37.

Q. All right, Dr. [REDACTED] I believe we are
on Figure 3 of your supplemental report.

Sorry.

Now, directing your attention to
Model 1 of the supplemental report, you
identify -- you found 23 statistically
significant positive returns. Correct?

A. Well, as we discussed, I just want to
distinguish event from return. 23 events
associated with statistically significant
positive returns and not negative returns.

Q. Fair enough.

And those 23 days are culled from the
514 event days that you considered in your
opening report. Correct?

A. It is correct. Those 23 event days
would be among -- well, I -- sorry.

514 events, I don't know how many

1 [REDACTED]
2 event days there are among those 514.

3 This -- this 23 is in terms of events,
4 which I actually think might be event days,
5 really should be event days.

6 So I -- so the events are part of the
7 514 events. If we're speaking in terms of days,
8 I don't know how many unique days there were
9 among the 514 events.

10 Q. Approximately 500 event days.

11 A. Approximately, but I don't know the
12 exact number.

13 Q. And the methodology you used in your
14 supplemental report reflects your judgment to
15 exclude approximately 400 of those event days
16 from your analysis. Correct?

17 MR. SYLVESTER: Objection.

18 A. I'm sorry, sir. Could you repeat the
19 question?

20 Q. The methodology you used in your
21 supplemental report reflects your judgment to
22 exclude approximately 400 of those event days
23 from your analysis.

24 Isn't that correct?

25 MR. SYLVESTER: Objection.

1 [REDACTED]
2 A. My supplemental report is meant to
3 further quantify the economic impact of the
4 events that I focused on in my opening report,
5 which were some events and not others.

6 Q. And what was the methodology you used
7 to exclude the approximately 400 event days from
8 the 500 that you examined in connection with the
9 opinions expressed in your supplemental report?

10 MR. SYLVESTER: Objection.

11 A. Well, as I think we discussed at
12 length last time, the event study methodology is
13 the study of certain events and not other
14 events.

15 So selecting the events to study is an
16 integral part of the event study methodology
17 itself.

18 Q. And my question, what was the
19 methodology you used to determine which events
20 you would study and which events you would not
21 that you relied on in connection with the
22 opinions expressed in your supplemental report?

23 A. I used my understanding of economics
24 generally to categorize the 514 events into, I
25 believe, 14 categories and, again, used my

1 [REDACTED]
2 understanding of economics to determine which of
3 those categories I thought would merit testing.

4 Some categories include events which,
5 by their nature, do not appear to be breaking
6 news. There is no theoretical reason why they
7 should impact XRP prices.

8 Other categories seemed of economic
9 interest to test to determine whether or not
10 there was a link between Ripple Labs and XRP
11 prices.

12 Q. So you -- you didn't rely on any
13 academic research or publications to inform the
14 judgment that you just described that led to
15 excluding approximately 400 of the 500 events
16 that you had collected.

17 Correct?

18 MR. SYLVESTER: Objection.

19 A. Well, I don't think that's a fair
20 characterization. Again, the -- part of the
21 event study methodology is the selection of
22 events. And economists routinely use their
23 understanding of economics to categorize events
24 in ways that are meaningful to the analysis at
25 hand. That's what I did.

1 [REDACTED]
2 Q. And my question is, you can't point to
3 any external methodology, formula, guidance,
4 that you used when you were exercising your
5 unilateral judgment about which events to
6 consider and which events to exclude. Correct?

7 MR. SYLVESTER: Objection.

8 A. Again, I don't think that that's a
9 fair characterization. So for instance, the --
10 the principle that an article, which does not
11 contain new information -- the principle that
12 that would presumably not impact a market price,
13 is, I would say, a well-established principle.
14 That's not a principle I invented. It's a
15 well-established principle.

16 So I -- I don't -- I don't know that
17 that's a -- a fair characterization. Again,
18 event study methodologies require -- well, let
19 me back up.

20 In some cases, an event study might be
21 conducted on -- on a particular event for some
22 reason, but many other event study methodologies
23 begin with categorizing sets of events to -- to
24 study questions of interest.

25 Q. What I'm trying to understand is,

1 [REDACTED]
2 other than the operation, the subjective
3 operation of your own mind, was there any
4 framework you used, any formula, any guidance
5 that you referred to or relied upon, in making
6 these judgments?

7 Or is it just your subjective judgment
8 about what you think is relevant and what's not?

9 MR. SYLVESTER: Objection.

10 A. We discussed this at great length last
11 time.

12 I begin with a set of news articles
13 which were culled by Ripple Labs in its curated
14 news sources of different types, as we discussed
15 in our prior deposition.

16 I then applied my understanding of
17 economics to construct what I thought was a -- a
18 helpful, meaningful, useful taxonomy by which to
19 categorize those events, and, further, applied
20 my understanding of economics to select some
21 categories to test and not others.

22 Q. All right. And I just want the record
23 to be clear. You have not identified a
24 publication in an academic journal that you
25 referred to or consulted or relied on in making

1 [REDACTED]
2 that judgment.

3 Is that correct?

4 MR. SYLVESTER: Objection.

5 A. Beyond my general academic training
6 and 20 years of experience working with news and
7 information and thinking about how news impacts
8 prices, I -- I did not cite to an article that
9 says, Here is how to categorize Ripple news.

10 Q. And focusing on the approximately 400
11 Ripple announcements that you excluded from your
12 methodology, in connection with the work you did
13 on your supplemental report, did you revisit any
14 of those events to determine whether they were
15 likely to be associated with a statistically
16 significant positive price impact on XRP?

17 A. I'm sorry. Did I -- did I revisit any
18 of those events -- I -- I apologize, sir. Could
19 you repeat the question?

20 Q. In connection with the work you did on
21 your supplemental report, did you go back and
22 reexamine any of the 400, approximately 400
23 events, that you excluded from the methodology
24 that you applied in your opening report?

25 MR. SYLVESTER: Objection.

1 [REDACTED]
2 A. Well, so -- again, as we discussed
3 last time, I didn't exclude all 400. I tested
4 some of them. For instance, the -- the office
5 and staff announcements, and some of the other
6 initiatives of Ripple Labs, so some of those 400
7 that you're referring to were indeed tested.

8 But in preparing my supplemental
9 report, no, I did not revisit or reconsider any
10 of the events outside of the category which,
11 again, I believe I called select events -- I
12 apologize if I'm not using the right phrase --
13 but that superset of five categories, that was
14 studied in my opening report. I did not
15 reconsider events outside of that set.

16 Q. All right. And with respect to the
17 approximately 100 events, event days that you
18 did consider in your supplemental report, you
19 substituted, at least with respect to Model 1,
20 23 of your estimated returns for the actual
21 returns.

22 Correct?

23 MR. SYLVESTER: Objection.

24 A. Almost correct. So for 23 events,
25 following the methodology that I outline in my

1 [REDACTED]
2 supplemental report, 23 events are associated
3 with a statistically significant positive
4 abnormal return -- again, speaking about
5 Model 1 -- and not associated with a
6 statistically significant negative abnormal
7 return.

8 In some cases, that is measured over
9 one day, sometimes over two, sometimes over
10 three. So for 23 events, I replaced the
11 statistically significant cumulative abnormal
12 return with the expected cumulative return.

13 So that might be somewhat more than 23
14 returns itself because, again, some will be two
15 days and some might be three days. I don't know
16 offhand the total count.

17 But with that larger, more-detailed
18 explanation, the general thrust of your question
19 was correct.

20 Q. So to summarize -- and I'm going to
21 use 23, as modified by your last answer, because
22 I accept that some may have been included or
23 excluded based on two- and three-day window you
24 used.

25 But using 23, which was the number

1 [REDACTED]
2 that's associated with the chart in Table 3, you
3 replaced actual price returns, with your
4 estimated price returns, for 23 of the 514 total
5 events that you considered using your
6 methodology.

7 Correct?

8 MR. SYLVESTER: Objection.

9 A. I followed the standard academic
10 practice when -- in terms of dealing with
11 abnormal returns to exclude the abnormal return
12 associated with 23 events. Correct.

13 Q. Out of a universe of 514 that you had
14 initially identified as potentially relevant
15 Ripple announcements. Correct?

16 MR. SYLVESTER: Objection.

17 A. As we've established, 23 events would
18 be found among the 514; that is true. What's
19 being studied here is a set of roughly a hundred
20 event days, 23 of which I replaced or removed
21 the abnormal return.

22 Q. And that's over a period of
23 approximately -- it's in your report, but
24 approximately 2400 total days during the period
25 of time that you studied, correct?

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A. Approximately, yes.

Q. All right. And just so the record is clear, the date on which you substitute the actual -- the -- your estimated price return, your predicted price return for the actual price return is the date of Ripple's announcement. Correct?

MR. SYLVESTER: Objection.

A. So -- so there's an event date. We can look at the abnormal return over one day, two days, three days. We can establish whether any of those is statistically significantly positive with a -- with a check for whether some are statistically significant and negative.

And following standard academic practice, I removed the statistically significant abnormal returns.

I think that was your question.

Q. That wasn't my question, but I'll try and make sure the record is clear here.

My question is, assume Ripple has an announcement on, hypothetically, January 1, 2017. It's hypothetical. Right?

And you find a statistically

1 [REDACTED]
2 significant positive return on XRP on January 1,
3 2017, and January 2, 2017.

4 Right?

5 The -- the day you replace will be --
6 the first day you replace will be January 1 and
7 January 2. Correct? You don't skip January 1
8 and go to January 2 when you substitute the
9 predicted return for the actual return.

10 Correct?

11 A. I'm not sure I followed that.

12 So I'll describe what I did if that's
13 all right.

14 So if -- if -- let's say that on
15 December 31, the price was, let's just say a
16 dollar. And during the day January 1, there's
17 an event of interest that we're studying. And
18 the closing price at the end of the day,
19 January 1, is \$1.25.

20 So the return on that day is
21 approximately 25 percent.

22 If that is statistically significant,
23 that abnormal -- and it -- if the abnormal
24 return is statistically significant, I would
25 then remove the abnormal return and -- which is

1 [REDACTED]
2 another way of saying, replace the actual
3 25 percent return with the expected return for
4 that day, which would be model-specific.

5 So, for example, if the expected
6 return were, let's say, 5 percent, then I would
7 be removing a 25 percent return and replacing it
8 with a 5 percent return so that with allowances
9 for logs and things like that, in rough numbers,
10 the price on December 31 is a dollar, and now
11 the counterfactual price at the close of
12 January 1 would be on the order of \$1.05.

13 Q. I'm just focusing on January 1. The
14 date you will replace on your hypothetical, in
15 my hypothetical is January 1. Right?

16 A. I was trying to follow your
17 hypothetical. Yes.

18 Q. And what is the cutoff time for
19 January 1 versus January 2 in your methodology?

20 A. Prices are -- I use closing prices as
21 measured by UTC time.

22 Q. What's UTC time?

23 A. I don't remember what that stands for,
24 but I think it's essentially Greenwich Mean
25 Time, Universal something, something.

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Q. So if Ripple's announcement was 20 minutes before UTC cut-off time, you still would replace the actual return on XRP for the estimated return for that day. Correct?

A. Hypothetically, per standard practice, yes.

Q. Now, if any of the 23 events that you replaced in the methodology that we've been discussing were confounded because you failed to consider some omitted variable -- I think you earlier testified some x factor -- the results of your counterfactual price calculation in the supplemental report would be unreliable.

Correct?

MR. SYLVESTER: Objection.

A. Well, understand the basis of the supplemental analysis. It is really motivated by a statement Professor Fischel made in his rebuttal report where he said -- and I'm paraphrasing -- Even if the link established in my opening report were assumed to be correct, there's no economic significance at face value 23 events can't matter.

I'm paraphrasing.

1 [REDACTED]
2 So the supplemental report begins with
3 the presumption, as that invites, to say, well,
4 let's assume the analysis of my opening report
5 is correct, which means that we can associate
6 these abnormal returns with these events.

7 And on that basis, we can then proceed
8 in the matter -- in the manner that I do, in the
9 supplemental report.

10 So the -- the supplemental report does
11 not provide additional evidence that the link
12 was correct. The supplemental report begins
13 with a presumption that the link is correct and
14 proceeds to establish the economic significance
15 of that link.

16 Q. And my question was, if you determined
17 that the assumption of the link was incorrect
18 because there was a confounding factor --
19 Elon Musk went a bought a billion dollars' worth
20 of XRP that day -- and you, therefore, had a
21 reason to know that the abnormal price return
22 was not correlated with the Ripple event that
23 you chose, the counterfactual price that you
24 calculated in your supplemental report would be
25 unreliable. Isn't that correct?

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MR. SYLVESTER: Objection.

A. Well, I'm not going to accept your example as a -- as actually an example of confounding information.

Elon Musk may have bought whatever you said, a million, billion tokens of XRP because of the event. So that doesn't confound the event.

Q. Assume he didn't. Assume the event is confounded. Your assumption about linkage is incorrect. The methodology that you used to count -- to calculate the counterfactual price return would be unreliable. Correct?

A. The -- the methodology that I use to construct the counterfactual price assumes that the link is true.

If that assumption -- if -- if somebody were to read the opening report, for example, and say, Well, I'm not persuaded that there's a link, then that person would not be persuaded that these are the counterfactual prices. One does follow from the other.

Q. And I'm asking you if you today learned that the link, the assumption you're

1 [REDACTED]
2 making about the link for one of those 23 events
3 was not a sound one and needed to be discarded,
4 then the counterfactual price calculation in
5 your supplemental report would be unreliable.

6 Isn't that correct?

7 MR. SYLVESTER: Objection.

8 A. I -- again, I can only repeat what I
9 said. The counterfactual price, the methodology
10 of -- of attributing the abnormal return to the
11 event, which is the standard methodology in the
12 literature, presupposes that the event drives
13 the abnormal return.

14 That's -- that's the -- the starting
15 assumption of the supplement analysis, as --
16 again, as suggested by Professor Fischel, to say
17 even if the link is true, it doesn't matter.
18 The purpose of the supplemental report is to
19 say, well, if we assume the link is true, let's
20 see whether or not it matters. And the results
21 follow from that.

22 But the supplemental report assumes
23 that the link is true.

24 Q. And if you could not assume that the
25 link was true or you determined that that

1 [REDACTED]
2 assumption was incorrect, then the
3 counterfactual price set forth in your
4 supplemental report would be unreliable.

5 Isn't that correct?

6 MR. SYLVESTER: Objection.

7 A. If -- if -- if -- we wouldn't -- we
8 would not necessarily be able to attribute the
9 entire abnormal return to the event.

10 Q. So the answer to my question is yes,
11 correct?

12 MR. SYLVESTER: Objection.

13 A. I don't know about -- you're using
14 this word "unreliable." I agree that the
15 methodology -- this aspect of the methodology in
16 the supplemental report is assuming that we can
17 associate the abnormal return to the event.
18 If -- if we can't make that assumption, then
19 we'd have to modify the methodology somehow in
20 the supplemental report. I agree.

21 Q. And if you had to modify the
22 methodology based on that inaccurate assumption,
23 the opinion you reach in your supplemental
24 report would no longer be a reliable opinion.

25 Correct?

1 [REDACTED]

2 A. I -- I can only say it again. The

3 supplemental report presupposes this link. The

4 opening report attempts to establish it. The

5 supplemental report essentially is saying, all

6 right, you know, it has been suggested that at

7 face value, 23 events can't -- can't amount to

8 anything. Let's go see whether or not that's

9 true.

10 Could 23 events amount to something?

11 That's the purpose of the supplemental

12 report.

13 Supplemental report does not by itself

14 establish that -- any sort of link for those 23

15 events. The supplemental report assumes a link

16 for those 23 events. As any analysis based on

17 an assumption, if the underlying assumption is

18 not valid, the subsequent analysis is then not

19 valid. That's almost a tautology.

20 Q. And you made an assumption with

21 respect to the methodology you used in reaching

22 the opinion set forth in your supplemental

23 report that it was not necessary for there to be

24 a semi-strong efficient market for XRP during

25 the period of time that you conducted your

1 [REDACTED]
2 study.

3 Correct?

4 A. Well, again, we've discussed this at
5 great length as well. I would characterize the
6 supplemental report as exploring a question
7 Professor Fischel posed.

8 Professor Fischel asserted that even
9 if the abnormal return on these 23 days could be
10 entirely attributable to Ripple Labs, it doesn't
11 matter economically. That was -- that was the
12 assertion he made.

13 I am in this section of the
14 supplemental report exploring that assertion,
15 saying -- if -- if I could finish -- okay, those
16 are the ground rules; let's posit that the
17 abnormal return on these 23 days is indeed
18 attributable to Ripple Labs. Is it true or is
19 it false that that is then of no economic
20 consequence?

21 Q. It's very interesting, Dr. [REDACTED] but I
22 would like you to try and answer my question.

23 Let's break it down. You testified
24 earlier, that it was not necessary for your
25 methodology to be -- methodology to be reliable,

1 [REDACTED]
2 that XRP operated in a semi-strong efficient
3 market.

4 Correct?

5 MR. SYLVESTER: Objection.

6 A. I testified -- testified when to that?
7 In our previous deposition?

8 Q. And in your report you said that the
9 evidence shows that the market for XRP is not
10 semi-strong efficient.

11 Correct?

12 A. I did write that. The academic
13 literature is consistent with that. My own
14 studies are consistent with that, yes.

15 Q. And, nevertheless, you performed a
16 methodology in which, notwithstanding your
17 acknowledgment that the market for XRP was not
18 semi-strong efficient, that you could calculate
19 a counterfactual price of XRP.

20 Correct?

21 MR. SYLVESTER: Objection.

22 A. I -- I can only say what I said.
23 The -- the supplemental report -- is -- is
24 taking the formulation as suggested by
25 Professor Fischel, which is if we can say that

1 [REDACTED]
2 the abnormal return is due to Ripple Labs, it
3 then doesn't -- it doesn't matter. And the
4 supplemental report that's part of the
5 supplemental report is simply exploring that
6 question. Is that true, or is that false?

7 Q. So is that the limit of the opinion
8 you express in your supplemental report?

9 A. I'm sorry. Is what the limit of my
10 opinion?

11 Q. That if you take 23 days and back
12 out -- 23 days with statistically abnormal
13 positive returns from the -- the price of XRP,
14 that you get to two cents? You're just
15 showing -- you're just disproving what you
16 believe Professor Fischel testified? That's the
17 sum total of the opinion that you express in
18 your supplemental report?

19 MR. SYLVESTER: Objection.

20 A. I -- the opinions of my supplemental
21 report are laid out. Again, there's -- there
22 are essentially two threads of attempting to
23 quantify the economic significance of the events
24 that are discussed in my opening report.

25 Q. Are you or are you not offering the

1 [REDACTED]
2 opinion with respect to Model 1, that there were
3 23 events or announcements by Ripple that
4 resulted in an increase or an inflation of the
5 price of XRP well above 2 cents per unit?

6 MR. SYLVESTER: Objection.

7 A. I think so.

8 Q. And you say you think so.

9 A. I mean, I hadn't -- I hadn't put it in
10 those words. But those words sound correct to
11 me.

12 Q. Let me direct your attention to
13 paragraph 9 of your supplemental report.

14 A. Yes.

15 Q. In Bullet Point 1, you state -- and
16 I'm quoting: But for the news and public
17 announcements related to Ripple to which XRP
18 prices reacted in a statistically significant
19 way, the U.S. dollar price for XRP token would
20 rarely have exceeded 2 cents.

21 A. Yes.

22 Q. That is your opinion, correct?

23 A. Correct.

24 Q. That has nothing to do with anything
25 that Professor Fischel testified to, does it?

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MR. SYLVESTER: Objection.

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Foundation.

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A. That -- that is my opinion, based on an analysis, which again, was -- was motivated in response to something that Professor Fischel said.

8

9

The -- the analysis is -- is based on a -- on a presumption that we can associate the abnormal return with the event.

11

Q. Could you have reached --

12

A. I --

13

Q. Sorry.

14

A. Sorry, if I could finish.

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If we can associate the abnormal return with the event, which I agree is a question -- somebody could ask, Can you or can't you? This analysis says, if we can, then certain things follow therefrom. That's what the supplemental -- that's what this part of the supplemental report is doing.

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Q. Directing your attention to paragraph 9. If you were persuaded that XRP did not trade in a semi-strong efficient market, could you have offered the opinion that you

1 [REDACTED]
2 offer in paragraph 9?

3 And by the paragraph 9, I'm talking
4 about bullet point 1, Thread 1 in your
5 terminology.

6 A. Well --

7 MR. SYLVESTER: Objection.

8 A. I -- yes, because I am persuaded that
9 XRP did not, at least at all points, trade in a
10 semi-strong efficient market.

11 Q. And if you learned or if you were
12 persuaded that you could not perform an event
13 study in the absence of a semi-strong efficient
14 market for XRP, could you have offered the
15 opinion that you offer in paragraph 9?

16 MR. SYLVESTER: Objection.

17 A. It's -- I -- I'm -- I'm -- again, I --
18 in my opening report, I followed methodologies
19 found in the peer-reviewed academic literature,
20 which acknowledge that the XRP market
21 specifically is not, at least at all points,
22 semi-strong efficient and yet nevertheless apply
23 event study techniques very similar to the ones
24 that I do.

25 So if I were persuaded that that was

1 [REDACTED]
2 not valid, which would, of course, require those
3 peer-reviewed academic articles, I suppose, to
4 be withdrawn, with correction, if things were
5 different, the world would be different.

6 But those -- you know, I'm following
7 peer-reviewed academic literature in applying
8 event study techniques to this market despite
9 the apparent fact that it was not at least at
10 all times semi-strong efficient.

11 Q. And my question -- I would like you to
12 try to answer it, Dr. [REDACTED] -- is, if the
13 academic literature turned from what you believe
14 it says and said, You cannot do an event study
15 for XRP in the absence of a semi-strong
16 efficient market, could you offer the opinion
17 that you offered in paragraph 9?

18 MR. SYLVESTER: Objection.

19 A. I'm just struggling. If the world
20 were different, it would not be the same.
21 That's true. If -- the -- the opinion in
22 paragraph 9 of the supplemental report is
23 essentially a mechanical exercise that says, if
24 the abnormal return can be associated with the
25 event, certain things follow. It's really -- as

1 [REDACTED]
2 I said, it's mechanical. It's arithmetic, it is
3 what it is, 2 plus 2 equals 4.

4 Now, if -- if I were persuaded and
5 convinced that in no circumstances could we
6 attribute the abnormal return to the event, then
7 I -- while the arithmetic would still be true,
8 it would cease to be interesting.

9 Q. It would cease to be reliable,
10 correct?

11 A. Well, reliable, reliable for what
12 purpose? I agree it would cease to be
13 economically interesting.

14 Q. Well, I don't want to -- I don't want
15 to fence with you about words. The -- the
16 question for you, as an expert in this case, is
17 whether you are offering a reliable opinion. My
18 question is, if a semi-strong efficient market
19 for XRP was necessary for you to have conducted
20 your event study, could you reliably offer the
21 opinion that's set forth in paragraph 9?

22 MR. SYLVESTER: Objection. Asked and
23 answered.

24 A. It has been asked. It has been
25 answered.

1

[REDACTED]

2

I -- I don't -- if the world were that different from how it actually is, I -- I -- I

4

don't know how I would respond. I...

5

It's -- it's an extreme hypothetical.

6

I just -- I just don't -- I just don't know

7

what -- I don't know what that world looks like,

8

the world that you're describing.

9

Q. Can you answer this question,

10

Dr. [REDACTED] If your event study that was set

11

forth in your opening report was proved to be

12

unreliable, could you offer the opinion in your

13

supplemental report that's set forth in

14

paragraph 9?

15

A. If I -- if I were -- if somebody could

16

disprove or if I were convinced that my analysis

17

in the opening report were invalid and

18

unreliable, I would not offer the opinions that

19

I'm offering in this supplemental report.

20

Q. You wouldn't offer it because it

21

wouldn't be reliable. Correct?

22

MR. SYLVESTER: Objection. Asked and

23

answered.

24

A. I wouldn't offer it because I don't

25

find it -- I wouldn't find it economically

1 [REDACTED]
2 interesting. I'll let other people use words
3 like "reliable."

4 But if -- if I were convinced that
5 there was no link between Ripple Labs and XRP
6 prices, then I would say, It is, therefore,
7 uninteresting to do the sort of exercise that
8 I've done in the supplemental report, and so I
9 wouldn't do it.

10 Q. All right.

11 If on any given day that Ripple
12 released an announcement, certain of your models
13 of the 20 models that you have used identified a
14 statistically significant price increase and
15 others of the 20 models identified a
16 significantly negative price increase, you
17 couldn't reliably offer an opinion that on that
18 day, Ripple's announcement caused a significant
19 price impact, correct?

20 MR. SYLVESTER: Can I clarify? Are
21 you asking about his 20 models or a
22 hypothetical?

23 MR. FIGEL: 20 models.

24 MR. SYLVESTER: Okay.

25 Q. Do you understand my question,

1 [REDACTED]
2 Dr. [REDACTED]

3 A. Could you repeat the question.

4 Q. Yes.

5 The question is, you have 20 models.
6 You have a event day with a Ripple announcement.
7 Ten of the models says -- identifies a
8 statistically significant price return on that
9 day. The other ten identified a statistically
10 significant negative price return on that day.

11 You with me?

12 A. I am.

13 Q. Based on the results of your
14 regression analyses, could you conclude that
15 there was -- that the Ripple announcement on
16 that day caused a statistically significant
17 positive return, abnormal positive return?

18 MR. SYLVESTER: Objection.

19 A. I would say that under -- that there
20 was evidence that it did with some models, and
21 some models there was evidence that it didn't.

22 It is -- it is not a requirement of
23 the event study methodology that every possible
24 model deliver exactly the same indication on an
25 event.

1 [REDACTED]
2 So all I could say is that under these
3 models, there's evidence that there was a
4 statistically significant positive abnormal
5 return on that day; and under some other models,
6 there is not such evidence.

7 That's all I can say.

8 Q. And what would your opinion be as to
9 whether the Ripple announcement on that day
10 caused a statistically significant positive
11 abnormal return?

12 MR. SYLVESTER: Objection.

13 A. I -- I haven't -- I -- hypothetically,
14 if it were 10 and 10?

15 I don't know. Honestly, I think it --
16 I think I would just need more information.
17 Which 10? What did the models look like? I
18 probably want to understand why the models were
19 giving such -- such opposite results on the same
20 day.

21 I would probably want to -- I would
22 probably want to investigate further before I
23 could -- before I could answer that question.

24 Q. And why would you want to?

25 A. Because I would -- I would want to

1 [REDACTED]
2 understand what was happening that might lead to
3 such an extreme outcome. I would -- I would
4 just want to understand what it was. For
5 example, I would just want to understand what it
6 was.

7 Q. And did you analyze or compare for any
8 specific day that Ripple released an
9 announcement, which of your 20 models identified
10 statistically positive abnormal price returns
11 and which did not?

12 MR. SYLVESTER: Objection.

13 A. Those results are available. But, no,
14 I did not -- I did not personally -- I did not
15 do the exercise of saying, for this event, let
16 me see what each the 20 models indicates. I did
17 not do that exercise.

18 Q. And why not?

19 A. I -- I wasn't interested in the
20 question -- I wasn't interested in that
21 question. Positing 20 models, which I think are
22 reasonable models and I'm conducting an analysis
23 under each one. And I find, broadly speaking,
24 that all of my results are robust and consistent
25 across all 20 models.

1 [REDACTED]
2 Q. Right. In paragraph 28 of your
3 opening report, you state that your report
4 tested whether XRP returns are associated with
5 news about Ripple.

6 Correct?

7 A. Sorry. Paragraph 28?
8 I must have misheard you.
9 Paragraph 28? I don't see the quote at
10 paragraph 28. I'm sorry if I misheard you.

11 Q. Let's go to -- apologies. I think I
12 have a typo there. Let's go to paragraph 34.

13 A. Uh-huh.

14 Q. You wrote in paragraph 34: The
15 econometric question of event study answers is
16 whether the differences between actual and
17 expected price movements are sufficiently large,
18 that from a statistical standpoint. Such
19 differences are unlikely to be explained by
20 random chance.

21 A. I did write that, yes.

22 Q. And you still agree with that,
23 correct?

24 A. I do.

25 Q. And you go on to explain that

1 [REDACTED]
2 sufficiently large differences between actual
3 price movement and expected price movements are
4 those which are statistically significant.

5 Correct?

6 A. I did write that.

7 Q. And those are still your views?

8 A. Yes.

9 Q. Now, when you say "associated" -- in
10 other words, a Ripple announcement is associated
11 with a statistically significant abnormal price
12 return -- you're talking about this correlation.

13 Correct?

14 A. What correlation? I'm sorry.

15 MR. SYLVESTER: Objection.

16 Q. A sufficiently large difference
17 between actual price movement and expected price
18 movement.

19 MR. SYLVESTER: Objection.

20 A. So -- so I'm sorry. The question was?

21 Q. When you say "events are associated,"
22 what you mean by "association" is evidence of a
23 statistically significant correlation.

24 Correct?

25 A. Not exactly. No.

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Q. Well, what do you mean by when you use the word "associate" in the -- in connection with a Ripple announcement and a statistically significant price impact?

A. I mean that there is a statistically significant price impact and a Ripple announcement at the same time.

Q. And that association, that connection is established through statistical analysis.

Correct?

A. Well, not -- no. That -- that association is established by looking at the date. So when I say that an event is associated with a return, all I mean is the event came out on January 1, and there was a statistically significant return on January 1.

Therefore -- in that context, when I use the word "associated," I'm -- that's what I mean, that the event is associated.

Q. And how do you distinguish between events that occur -- announcement that occurs on the same day that you observe a statistically significant price return, to determine whether that's random or there's some form of

1 [REDACTED]
2 correlation?

3 A. Well, that is -- that question is, to
4 a large extent, what my opening report deals
5 with. It's precisely trying to determine
6 whether we can -- whether we can say, Is that
7 just a coincidence because coincidences happen?
8 Or is it beyond coincidence?

9 So my opening report lays out the
10 statistical principles that would allow us to
11 test that question and explains the evidence
12 that I have, which would allow me to reject that
13 hypothesis that it's just a coincidence.

14 Q. And if you find that it's more than
15 just a coincidence, you say the events are
16 correlated, correct?

17 A. I -- I test the hypothesis that
18 Ripple Labs is independent of XRP prices. I'm
19 able to reject the hypothesis that they're
20 independent.

21 THE COURT REPORTER: "Reject" or
22 "recheck"?

23 THE WITNESS: Reject.

24 Q. Look at paragraph 30 of your opening
25 report if you would.

1 [REDACTED]
2 And if you could just read the two --
3 the last two sentences of paragraph 30, the one
4 that begins: I've been asked by the SEC's...

5 A. I've been asked by the SEC's
6 litigation counsel to test whether news about
7 Ripple Labs and its actions is associated with
8 statistically significant XRP price changes.
9 This association can be tested based on the idea
10 of independence. That is, by evaluating the
11 likelihood that news about Ripple Labs would
12 occur at the same time as significant XRP price
13 change -- as a significant XRP price change.

14 Q. How are you using the word
15 "associated" in those two sentences?

16 A. Here I am asking whether there is a
17 correlation or association or connection between
18 news of Ripple Labs and XRP price changes.

19 DIR Q. And when you find -- and what is the
20 methodology by which you determine whether there
21 is a correlation or association between news of
22 Ripple Labs and XRP price changes?

23 MR. SYLVESTER: Objection. We've now
24 wandered well into his methodology in his
25 opening report. You know, I -- I'm trying

1 [REDACTED]
2 to give some latitude to ask questions
3 about the supplemental report, but you're
4 asking him directly a question about what
5 methodology he employed for purposes of
6 reaching his opinion in his opening report.
7 And that's just not within the Court's
8 order. So I'm going to object to that
9 question.

10 If you want to ask him a question
11 about his methodology in the supplemental
12 report, that --

13 MR. FIGEL: Are you directing him not
14 answer the question?

15 MR. SYLVESTER: I am.

16 Q. Look at paragraph 9 of your
17 supplemental report.

18 A. Uh-huh.

19 Q. Could you read the sentence under the
20 first bullet point, beginning with Figure 1.
21 Read that into the record, please.

22 A. Figure 1, below, presents the results
23 for the constant mean return model, Model 1,
24 described in the [REDACTED] report, when the
25 statistically significant abnormal returns

1 [REDACTED]
2 associated with Ripple events are removed from
3 the price history of XRP and a counterfactual
4 price history is constructed; i.e., a price
5 history of XRP but for the statistically
6 significant price reactions to the Ripple
7 events.

8 Q. How are you using the word
9 "associated" in the sentence you just read?

10 A. I would say I'm using it in everyday
11 speech to say the returns that are linked
12 with -- the statistically significant abnormal
13 returns linked with Ripple events.

14 Q. Well, we are talking about the
15 statistically significant abnormal returns that
16 you remove as part of your -- your
17 counterfactual analysis.

18 Correct?

19 MR. SYLVESTER: Objection.

20 A. I believe that's correct. Yes.

21 Q. And those are the returns that you
22 write in this sentence are associated with
23 Ripple events.

24 Correct?

25 A. Yes.

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Q. And the basis for removing those returns in your counterfactual analysis, it's because they are associated as that term is used in everyday speech.

That's the -- the association in terms of everyday speech is the reason that you exclude abnormal price returns.

Is that correct?

MR. SYLVESTER: Objection.

Q. Let me withdraw the question.

A. Yeah. I'm sorry. I don't understand.

Q. I've asked you -- I've asked you to define the word "association." You said you used that word in this paragraph as you would use it in everyday speech.

Can you -- can you explain what you mean by using the word "association" as you would in everyday speech?

A. I -- I -- I suppose I mean that there is some form of a connection between two things.

Q. What do you mean by "some form of connection" as you use the word "association" in this paragraph?

A. I mean that -- so, again, the

1 [REDACTED]
2 supplemental report is presuming the link that
3 the opening report establishes, which means that
4 for the purposes of the supplemental report, we
5 are assuming that XRP prices can react to news
6 and actions by Ripple Labs. I understand you
7 don't agree with that, but that's the
8 presumption.

9 So now, what do we do?

10 Now we go event by event in the set of
11 events that we're considering. And where a
12 statistically significant abnormal return can be
13 associated with or linked to or assigned to or
14 ascribed to an event, we then remove that
15 abnormal return, which is, again, the typical
16 approach to -- to -- that is what you find in
17 the literature, in event studies, when we are
18 trying to quantify the impact of an event on a
19 price. We do it in terms of the abnormal
20 return.

21 Q. Dr. [REDACTED] I'm asking you to explain
22 the connection between the Ripple announcements
23 and the abnormal price returns that you remove
24 as part of your counterfactual analysis.

25 Is it your testimony that the basis

1 [REDACTED]
2 for removing those abnormal price returns is
3 because you believe the Ripple announcement
4 caused the abnormal price return?

5 A. The -- again, the presumption of the
6 supplemental report as suggested by Professor
7 Fischel is to make precisely that assumption.

8 Q. And what do you mean by "precisely
9 that assumption"?

10 A. The assertion was made by
11 Professor Fischel that even if the abnormal
12 return could be attributed to Ripple Labs at
13 face value, 23 such abnormal returns in the
14 history of 2400 days cannot amount to much of
15 economic significance. I'm testing to see
16 whether that's true or false.

17 So if we're going to make that
18 assumption, which I -- I understand you don't
19 want to make. I understand that. But if we
20 want to make that assumption, certain things
21 follow.

22 I don't know what those things are
23 going to be until I do the work. But having
24 done the work, I find what I find, which is, for
25 instance, that the counterfactual XRP price

1 [REDACTED]
2 barely ever moves.

3 Q. And I'm asking you, for the purpose of
4 the opinion you express in your supplemental
5 report, whether you are making that assumption,
6 you personally, Dr. [REDACTED]

7 A. The --

8 MR. SYLVESTER: Objection.

9 A. As I've testified several times, yes.
10 That is the underlying assumption of the
11 supplemental report. As I explained in the
12 supplemental report, if -- if the abnormal
13 return can be attributed to event, what does
14 that mean?

15 This is what it means.

16 Q. Do you have an opinion as to whether
17 the abnormal return can be attributable to the
18 Ripple event on the 23 instances that you
19 analyze in connection with your counterfactual
20 report?

21 A. I am of the opinion that the XRP --
22 XRP prices do react to some news and actions
23 from Ripple Labs. That's an opinion I laid out
24 in my opening report.

25 And I am of the opinion that if the --

1 [REDACTED]
2 all of the abnormal return can be attributed to
3 the event, that this is the subsequent
4 counterfactual price history.

5 Q. All right.

6 In your prior deposition, you
7 testified: Causation is not a question which is
8 generally subject to proof as a matter of
9 economics.

10 Do you still agree with that
11 statement?

12 A. I do still agree with that statement,
13 yes.

14 Q. And why is it that you agree with
15 that?

16 A. Because certainly in the space of
17 empirical economics or econometrics, which is
18 the application of statistics to data, the sort
19 of statistics that economists usually have
20 access to are correlative in nature.

21 In other words, there's a -- and there
22 are exceptions. There are exceptions in the
23 sphere of behavioral economics or experimental
24 economics, where a researcher might be able to
25 conduct a study and manipulate it in such a way

1 [REDACTED]
2 that, arguably, causation could be proven
3 through the study.

4 Most of the time -- well, I don't know
5 most of the time. Let's say much of the time,
6 economists don't have access to that kind of
7 experimental data. They're picking up data on
8 things that happened. Prices went up; prices
9 went down. Output went up; output went down.

10 And they do statistical investigation
11 into those data, and they establish that one
12 thing is perhaps correlated with another.

13 As I testified at length last time, it
14 is true that simply establishing that one thing
15 is correlated with another, simply establishing
16 that A is correlated with B by itself does not
17 allow you to say, therefore, A caused B. There
18 are other possible explanations which would
19 result in a correlation between A and B.

20 So economists begin with statistics;
21 but they then typically do other work, other
22 analysis, to then draw a conclusion or an
23 inference of likely causation.

24 Q. And in connection with the opinions
25 that you offer in your supplemental report, did

1 [REDACTED]
2 you engage in any of the type of behavioral
3 economics or experimental economics that would
4 allow you to go past statistical correlation to
5 causation?

6 MR. SYLVESTER: Objection.

7 A. I certainly didn't conduct any
8 experiments related to my supplemental report.
9 No.

10 MR. SYLVESTER: We have been going for
11 about an hour now. Would it be a good time
12 for a break?

13 MR. FIGEL: Can I just do one more
14 question to close this out?

15 MR. SYLVESTER: Certainly.

16 Q. You just testified that you are of the
17 opinion that XRP prices do react to some news
18 and actions from Ripple Labs.

19 What do you mean by the term "react"?

20 A. I mean that, upon learning the news,
21 at least some news from Ripple Labs, prices then
22 respond.

23 Q. And what is the basis for the
24 connection between learning news and price
25 response?

1 [REDACTED]
2 That suggests causation, right? The
3 news comes out, and there's a response based on
4 the news.

5 A. Again --

6 MR. SYLVESTER: Objection.

7 A. -- as I explained and as I testified
8 at our last deposition, I think that the -- the
9 evidence, taken as a whole, supports an
10 inference that the news causes the price.

11 Q. You say "supports an inference,"
12 correct?

13 A. I did say that.

14 Q. You're not -- you're not testifying
15 that you have established causation. Correct?

16 A. I am testifying that I have assembled
17 the type of economic evidence that is routinely
18 used in assigning causation to events -- between
19 events and prices. I've assembled precisely the
20 same kind of evidence.

21 In my opinion, there is a connection
22 between Ripple Labs and XRP prices, and the most
23 likely explanation is that the news caused the
24 price. Because other possible explanations seem
25 unreasonable and unlikely.

1 [REDACTED]
2 Q. All right. See if you can answer this
3 yes or no: Did you engage in any economic work
4 to determine whether you could establish that
5 Ripple news caused a change in the price of XRP?

6 MR. SYLVESTER: Objection.

7 Argumentative.

8 A. I would point to my entire opening
9 report as the work that I did to establish the
10 linkage between the two and to explain why, in
11 my opinion, the reasonable inference to draw
12 from the available evidence is that the price
13 caused the -- I'm sorry -- that the news caused
14 the price. My entire opening report explores
15 these questions.

16 Q. Are you testifying that the
17 methodology that you used allows you to say
18 anything more than that there is a reasonable
19 inference that a Ripple news event impacted the
20 price of XRP?

21 MR. SYLVESTER: Objection. Misstates
22 his testimony.

23 A. My opinions are laid out in my opening
24 report. I believe the evidence suggests that
25 the price -- XRP prices are reacting to the

1 [REDACTED]
2 news. And I -- I -- we covered this at the
3 previous deposition. I have an entire report on
4 the subject.

5 I establish the correlation, but then
6 I do a number of other investigations to rule
7 out, to -- to rule out other logically possible
8 explanations for the evidence that I have, such
9 that what I am left with is the opinions that I
10 have in this matter.

11 Q. How do you square that answer with
12 your earlier testimony that causation is not a
13 question which is generally subject to proof as
14 a matter of economics?

15 MR. SYLVESTER: Objection.

16 A. As -- as we -- as I explained last
17 time, proof in the sense of -- of positing a
18 hypothesis that A caused B, and then accepting
19 or rejecting the hypothesis, is not typically in
20 the scope of what an empirical economist is able
21 to do.

22 An empirical economist typically --
23 you can find exceptions -- typically, is
24 positing hypotheses of the type, A is correlated
25 with B, yes or no, true or false? That's the

1 [REDACTED]
2 statistical analysis.

3 The economic analysis is a combination
4 of statistical analysis with other research and
5 understanding and analysis, such that economists
6 frequently will make a statement like, The
7 earnings announcement caused a drop in the stock
8 price. That's a routine statement that
9 economists make.

10 Now, if you ask that -- an economist
11 who made that statement, Did your statistical
12 analysis allow you to say that? I think the
13 economist would give you the same answer I did,
14 which is, No. The statistical analysis allowed
15 me to say there was -- there was a statistically
16 significant price drop. My understanding of the
17 facts and the circumstances of the case allow me
18 to make a statement like, the earnings
19 announcement caused the price to drop.

20 MR. FIGEL: Why don't we take a break.

21 THE VIDEOGRAPHER: This ends Unit 2.

22 We are off the record at 3:43.

23 (Recess from 3:43 to 4:19.)

24 THE VIDEOGRAPHER: This begins Unit 3.

25 We are on the record at 4:19.

1

2 Q. Dr. [REDACTED] you didn't rely on or
3 consider any new academic studies of literature
4 in your supplemental report other than what you
5 identified in the opening report. Correct?

6 A. As I would interpret that, I would say
7 yes. I cite to -- I cite to an -- to an article
8 that I had cited to previously. I think I may
9 have cited to a different location in that
10 article, but not to -- not to a new article.

11 Q. And you knew you were under an
12 obligation to identify and disclose any such
13 authority, had you considered or relied on it,
14 correct?

15 A. Well, I -- I understand I need to
16 report documents relied upon. Yes.

17 Q. And considered.

18 A. I always thought it was relied upon.
19 In this case I don't know that there's a
20 difference, but I -- I always thought it was
21 relied upon.

22 Q. And -- and just so we're clear, and
23 what I'm particularly focused on is, you are not
24 pointing to any additional academic literature,
25 textbooks, studies, to support the opinions that

1 [REDACTED]
2 you are offering in your supplemental report
3 beyond what was disclosed in the opening report,
4 correct?

5 A. Again, I think that's correct, with
6 the understanding that I think I might be citing
7 to a different location in -- in an article that
8 I had previously cited to.

9 But I -- I don't believe there are any
10 new articles.

11 Q. And none of the academic studies or
12 literature that you cited in your opening report
13 or that you referred to in your supplemental
14 report addresses calculating a counterfactual
15 price for a digital asset by identifying
16 statistically significant returns that coincide
17 with events and replacing the actual returns.

18 Correct?

19 MR. SYLVESTER: Objection.

20 A. Well, they -- again, they -- they
21 certainly do discuss the -- the concept of -- of
22 attributing the abnormal return to the event in
23 the context of an event study.

24 I don't know whether they say this
25 also applies to digital tokens. I'm sure they

1 [REDACTED]
2 don't say it does not apply to digital tokens.
3 My guess is they don't use the word "digital
4 token."

5 But the general approach of
6 attributing the abnormal return to an event in
7 the context of an event study is -- is standard
8 in the literature.

9 Q. And again, my question goes to the
10 counterfactual price opinion you offered in your
11 supplemental report.

12 Do any of the academic studies or any
13 of the information that you cite, in any of your
14 reports, discuss a methodology for determining
15 the counterfactual price in the manner that you
16 set forth in your supplemental report?

17 A. Well, I -- I would say yes.

18 Q. What -- what studies are those?

19 A. Well, the ones that I cite to in my
20 supplemental report. I don't remember which
21 footnote it is.

22 But the Campbell, Lowe and McKinley --
23 To appraise the event's impact, we acquire a
24 remeasure of the abnormal return, and we
25 interpret counterfactual... or sorry, the rest

1 [REDACTED]
2 of that is me.

3 I'm sorry, I will continue the
4 footnote: We interpret the abnormal return over
5 the event window as a measure of the impact of
6 the event on the value of the firm or its
7 equity.

8 So again, the basic methodology of
9 saying the -- in the context of an event study,
10 that the abnormal return is the measure of the
11 impact of the event, I would say, is standard.

12 Once you understand that, the method
13 of -- that I follow follows from that.

14 Q. Dr. [REDACTED] I'd like to show you what's
15 been marked as Exhibit 14.

16 (Article entitled "The Econometrics of
17 Financial Markets" was marked [REDACTED] Exhibit
18 14 for identification, as of this date.)

19 MR. SYLVESTER: Do you have a copy for
20 me, please?

21 Thank you.

22 Q. Is this a copy of the article that you
23 just referenced in your testimony?

24 MR. SYLVESTER: Take your time to
25 review it.

1



2 A. Well, I -- I mean, it's -- it's the
3 same authors and the same title. Whether it's
4 the -- the same edition, I -- I -- I don't know
5 if I know if it's the same edition or not. But
6 it's the same authors, the same title. Is it
7 the same edition?

8 Q. It's your footnote and --

9 A. Well, my footnote points to second
10 edition, 1996. I see here copyright 1997. I'm
11 just looking for where it may say second
12 edition. I'm probably just not seeing it.

13 I don't know. I don't -- I don't see
14 "second edition." If somebody else sees it and
15 wants to point it to me.

16 Q. Why don't you take a look at the page
17 citations that you have in your footnote --

18 A. Uh-huh.

19 Q. -- that you just identified as the
20 source of the methodology for calculating the
21 counterfactual return that you -- that you
22 conducted in your supplemental report.

23 A. Uh-huh.

24 Q. And tell us whether, on page 151, you
25 see anything that you believe supports your

1 [REDACTED]
2 testimony that this article discusses the --
3 the -- the counterfactual calculation that you
4 performed in your supplemental report.

5 A. Well, Bullet 3, page 155 -- 151.

6 To appraise the event's impact, we
7 require a measure of the abnormal return. The
8 abnormal return is the actual ex-post return of
9 the security over the event window minus the
10 normal return of the firm over the event window.

11 It defines the normal return as the
12 expected return. Defines the abnormal return.
13 Discusses ways to model them, but essentially,
14 in essence, this -- this is consistent with --
15 with what I'm saying, which is that in the event
16 study literature, the impact of the event is
17 measured by the abnormal return.

18 Q. And it's your testimony that this
19 article establishes a methodological basis for
20 the counterfactual return that is set forth in
21 your supplemental report?

22 A. I believe it does, yes.

23 Q. All right. Other than this article,
24 are you aware of any other publication, academic
25 treatise, textbook, that supports the

1 [REDACTED]
2 counterfactual analysis, counterfactual price,
3 methodology that you utilized in your
4 supplemental report?

5 A. It is my general understanding and
6 awareness that the abnormal return is the
7 measure of the impact of an event. This is one
8 citation that makes that point.

9 Sitting here today, I -- can I list
10 other ones? No, I can't. But that is generally
11 the received result that I'm aware of.

12 I think it's consistent, for instance,
13 with court treatments of -- of abnormal returns,
14 and damages in certain cases. So I -- I believe
15 this is a very standard result.

16 Q. But none of the other authorities set
17 forth in any of your reports specifically
18 address this issue. Correct?

19 A. Well, I -- I don't know that that's
20 true. I -- you're saying that none of the other
21 authorities that I reference in my reports
22 discuss how to measure the impact of an event.
23 I'm not prepared to say that they don't discuss
24 it.

25 Q. Well, you don't cite to any of them in

1 [REDACTED]
2 support of the methodology that you are
3 utilizing in your supplemental report. Correct?

4 A. Correct. This is -- this is -- I
5 would say this is a -- a settled, established,
6 unremarkable result. I cite to one authority.
7 I suppose I could have cited to a dozen, but I
8 cited to one.

9 Q. And the authority that you did cite to
10 sounds like it was published in 1996 or 1997.
11 That doesn't endorse the methodology that you
12 used in your supplemental report for calculating
13 the counterfactual price of a digital asset.

14 Correct?

15 MR. SYLVESTER: Objection.

16 A. Well, I -- I would say that it does.
17 It says that we measure the impact of an event,
18 by its abnormal return. That is what I did.

19 Q. And show me where in Exhibit 14
20 there's any mention of utilizing that approach
21 for a counterfactual price for a digital asset.

22 A. Well, again, I don't know that I --
23 based on the date of publication, I assume the
24 words "digital asset" do not appear.

25 But the general principle that the

1



2 impact of an event is measured by the abnormal
3 return is the principle that I'm using.

4 Q. And my question is -- so we agree that
5 the -- the article that you cite doesn't endorse
6 the use of this methodology for calculating a
7 counterfactual return to digital assets.

8 My question is, are you aware of any
9 other literature that has applied that
10 methodology to the counterfactual price of a
11 digital asset?

12 MR. SYLVESTER: Objection. Misstates
13 his testimony. And compound.

14 A. Yeah, I mean, I'm -- I'm not going to
15 agree with you that it doesn't support it.

16 Again, this -- this is -- in the event
17 study literature, the impact of an event is
18 measured by the abnormal return.

19 As I've said before today, I'm -- I'm
20 really taking Professor Fischel's suggestion to
21 say, Well, if we want to associate the abnormal
22 return with the events, then it is of no
23 economic consequence. And I'm exploring that
24 question.

25 Associating the abnormal return with

1 [REDACTED]
2 the event is the standard methodology in the
3 economics literature.

4 And I -- I'm following standard
5 practice.

6 Q. You became a professional expert
7 witness in approximately 2018? Correct?

8 A. I -- I began my career as an economic
9 consultant in 2018, yes, that's correct.

10 Q. And since that time, have you ever
11 conducted a counterfactual price analysis with
12 respect to any asset, other than in this case?

13 A. I'm -- I'm -- I'm trying to remember
14 some work that I did in -- in the Rio Tinto
15 matter.

16 There was a -- there was a -- there
17 was a price analysis in that matter that
18 explored the question of how the price of
19 certain bonds might have been different had
20 circumstances been different. That's a form of
21 a counterfactual price analysis.

22 There was a question of the valuation
23 implication from an abnormal equity return on
24 the valuation of a real asset. That's, again,
25 essentially -- not essentially, that is saying

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that the impact of the event is measured by the abnormal return.

Those two things come to mind.
Those -- those two things come to mind.

Q. Well, one was the Rio Tinto case.
What was the other matter in which you conducted --

A. Those were both -- those -- both of those examples that I mentioned were elements of the -- the Rio Tinto matter.

Q. In the Rio Tinto case, did you offer a counterfactual price analysis for an asset excluding certain events or excluding the price impact of certain events?

A. Again, in that matter, there was some discussion of -- of the quantification of a certain event. I don't -- I don't really want to go into -- because I'm just not sure that I can go into too many details. And that quantification was measured by the abnormal return.

That's -- the essential methodological approach that I'm using here.

Q. Did you --

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2 A. Did I say, But for this announcement,
3 the price would have been X?

4 I did not literally say that. But
5 implicitly, in everything that we're doing, I'm
6 saying, But for this announcement, the price
7 would have been X because I'm saying that
8 this -- the impact of this announcement is
9 measured by the abnormal return.

10 Q. Did you express an opinion on the
11 counterfactual price of an asset in the
12 Rio Tinto case?

13 MR. SYLVESTER: Objection.

14 A. I would not describe my opinions in
15 that case that way, no.

16 Q. So the answer to my question is no.
17 Correct?

18 MR. SYLVESTER: Objection. Asked and
19 answered.

20 Q. You did not offer an opinion about the
21 counterfactual price of an asset in the
22 Rio Tinto case.

23 Isn't that correct?

24 MR. SYLVESTER: Objection. Asked and
25 answered.

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A. Yeah. Again, I'm struggling just to say yes, because while I would not characterize my opinions in terms of counterfactual price, my opinions related to abnormal returns.

So by implication, if I were asked what do I think the price would have been but for this news event, I would give essentially the same type of answer that I'm giving in this case. That's -- that's the best way that I can answer your question.

Q. Now, you've not been engaged to provide an expert opinion by anyone other than the SEC. Correct?

A. No, that's not correct.

Q. Who else has engaged you to offer an expert opinion?

A. I was engaged by counsel for the debtors in an ongoing bankruptcy dispute.

Q. What bankruptcy dispute was that?

A. I suppose -- well, I suppose I can say. LATAM Air. I was engaged by Cleary Gottlieb, and I don't remember the rest of the names.

Q. Did you offer an opinion about a

1 [REDACTED]
2 counterfactual price of an asset, in the LATAM
3 bankruptcy matter?

4 MR. SYLVESTER: You might just want to
5 take a pause because, obviously, the SEC
6 has nothing to do with this.

7 THE WITNESS: Yeah.

8 MR. SYLVESTER: I'll just ask you to
9 consider your obligations in that case with
10 respect to confidentiality or privilege.

11 Q. Let's start with yes or no. That
12 doesn't seem to be...

13 They're public proceedings. You can
14 answer --

15 A. I --

16 Q. If you can, answer yes or no whether
17 you offered an opinion, an expert opinion about
18 the counterfactual price of an asset in that
19 proceeding.

20 MR. SYLVESTER: Have you offered a
21 public opinion? Can we ask that
22 foundational question?

23 MR. FIGEL: Let him answer this, and
24 then we'll see where we go.

25 MR. SYLVESTER: Just trying to keep

1

2 him out of trouble.

3 THE WITNESS: Yeah, and I appreciate

4 that.

5 A. The status of that -- of my

6 involvement in that case is I've submitted an

7 expert report and I've been deposed. I have

8 not -- I simply don't know the extent to which

9 any of that is public.

10 Q. Other than in this case, have you ever

11 offered an expert opinion about the

12 counterfactual price of an asset?

13 A. I've -- I've tried to answer your

14 question. I -- I -- in -- in other cases, I

15 have offered opinions about the impact of

16 events. In all such cases, I've measured the

17 impact of the event through the abnormal return.

18 Implicit in doing that is an

19 understanding that -- what the counterfactual

20 price would be. In those other cases, as I've

21 said, I did not explicitly write down and say,

22 By the way, the counterfactual price would have

23 been X. That -- I didn't do that.

24 But if I were asked to do that, I

25 would do it in exactly the same way. And it's,

1 [REDACTED]
2 again, implicit -- the fundamental question is,
3 is the impact of the event measured by the
4 abnormal return?

5 If you say yes, all of the rest of
6 this follows.

7 If you say no, then you're at odds
8 with the economic literature.

9 Q. Dr. [REDACTED] in this case you offered an
10 opinion that but for the impact of certain
11 Ripple announcements, the price of XRP would
12 have been 2 cents -- would not have been greater
13 than 2 cents.

14 Correct?

15 A. Would have rarely been greater than
16 2 cents.

17 Q. Have you ever offered an opinion in
18 any other case in which you said, But for
19 certain events, the price of an asset would not
20 have been greater than X? Yes or no.

21 MR. SYLVESTER: Objection.

22 Argumentative.

23 A. To that specific question, I would
24 say, no, I have never offered an opinion that
25 would formally resemble what you described.

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Q. Now, the opinions expressed in your supplemental report are based on what you believe are statistically significant correlations between Ripple news and positive XRP price returns. Correct?

A. I -- I think that's broadly correct, yes.

Q. And it's possible for Ripple news events to be correlated with statistically significant price decreases.

Correct?

A. Certainly logically possible, yes.

Q. And the actual price data that you relied on showed both positive and negative reported returns for XRP, correct?

A. That is certainly true.

Q. Sometimes the prices went up?

A. Sometimes they went down.

Q. And sometimes they went abnormally down, correct?

MR. SYLVESTER: Objection.

A. Yes, I do know that sometimes the decreases would be flagged as statistically significant.

1 [REDACTED]
2 Q. Just so the record is clear, the 20
3 models that you relied on for the opinions
4 you've expressed in this case generated both
5 predictions of statistically -- withdrawn.

6 The 20 models that you relied on in
7 this case identified both statistically positive
8 impact on XRP and statistically significantly
9 negative price impact on XRP. Correct?

10 MR. SYLVESTER: Objection.

11 A. I -- well, no, I'm not prepared to say
12 that. The 20 models identified statistically
13 significantly positive abnormal returns and
14 statistically significantly negative abnormal
15 returns.

16 I tested, if you recall in the opening
17 report, whether there was any correlation
18 between the event days and the negative returns.
19 And I found that there was no indication of
20 correlation. In other words, the assumption of
21 independence between the news and negative
22 returns could not be rejected.

23 So I would say, based on the work in
24 my opening report, I -- I have seen no evidence
25 that the news is associated with, in a

1 [REDACTED]
2 statistically significant way, significant price
3 decreases.

4 Q. And were you looking for evidence that
5 a Ripple announcement was associated with a
6 statistically significant price decrease?

7 A. I -- I explored the question, yes,
8 because, as I explained in my opening report,
9 while -- while a correlation between what
10 appears to be good news and -- as I explained in
11 my opening report, if the news is good, one
12 would -- one might expect positive price
13 increases. And one would not expect negative
14 price increases.

15 Therefore, I thought as a -- as part
16 of my analysis, it was worth checking: Well, is
17 there any correlation between this news, which
18 reads as generally good news, and negative
19 increases?

20 And I found that there was not, which
21 is -- that absence is part of my opinion that
22 allows me to say that I think there's a --
23 there's a -- a relationship between the news and
24 the price.

25 Q. Dr. [REDACTED] when you were replacing the

1 [REDACTED]
2 actual XRP price returns with your estimated
3 price returns, you excluded -- or I use the word
4 "disqualified" -- certain event days and price
5 impact when you found a statistically
6 significant negative return on either the first
7 day, the second day, or the third day.

8 Correct?

9 MR. SYLVESTER: Objection.

10 A. That sounds correct. In other words,
11 if -- if -- if we want to say that a Ripple
12 event is going to be associated with a
13 significantly positive abnormal return, we
14 can -- we can simply ask that question.

15 I further asked the question: Well, I
16 want to make sure that it's not associated with
17 a significantly negative return.

18 So, yes, I -- I checked whether or not
19 any of the returns was significantly negative as
20 part of my procedure.

21 Q. And the way you checked was by
22 referencing your 20 regression models, correct,
23 to determine whether the estimated price,
24 negative price in certain circumstances, was
25 correlated with a statistically significant

1 [REDACTED]
2 negative XRP price. Correct?

3 MR. SYLVESTER: Objection.

4 A. I -- I really didn't understand that
5 question. I'm sorry.

6 Q. Well, let me -- let me try it a
7 different way. You said that you considered
8 statistically significantly negative XRP price
9 returns when you were replacing predicted
10 returns with actual returns. Correct?

11 A. Correct.

12 Q. And how did you identify when there
13 was a statistically significant negative XRP
14 price return?

15 A. That is a part of the output of the
16 regression analysis.

17 Q. When you say the regression analyses,
18 you mean the 20 models that -- that are set
19 forth in your opening report and that you relied
20 on in your supplemental report, correct?

21 A. Correct.

22 Q. So those models allow you to identify
23 statistically significant negative returns.
24 Correct?

25 A. Those models identify statistically

1 [REDACTED]
2 significant abnormal returns, yes.

3 Both positive and negative.

4 Q. All right. But your counterfactual
5 price methodology excluded statistically
6 significant negative XRP price returns.
7 Correct?

8 A. No.

9 Q. Well, if on Day 1 there -- you
10 identified no significant return, Day 2 --

11 A. Uh-huh.

12 Q. -- you identified a statistically
13 significant negative return, and Day 3 you
14 identified a statistically significant positive
15 return --

16 A. Correct, yes.

17 Q. -- and -- and the -- the aggregation
18 or the net of those three observations was a
19 statistically significant positive return --

20 A. Uh-huh.

21 Q. -- you would not include that in your
22 counterfactual price analysis.

23 Correct?

24 A. Under -- under the circumstance if you
25 lay it out, I would just adjust any of those

1 [REDACTED]
2 returns.

3 Q. And, in general, when you identified a
4 statistically significant negative price return
5 prior to a statistically significant positive
6 price return, in the one-, two-, or three-day
7 windows that you were looking at, you excluded
8 that event from your counterfactual price
9 analysis.

10 Correct?

11 MR. SYLVESTER: Objection.

12 A. I think that -- yes. I think that
13 what you're saying is correct.

14 Q. And so at no point in your
15 counterfactual calculation did you reduce any of
16 the statistically significant positive price
17 impacts you identified by any statistically
18 significant negative price impacts that you
19 identified, correct?

20 A. Sorry. At no -- I'm sorry, could I
21 hear that again? I'm sorry.

22 Q. So at no point in your counterfactual
23 calculation did you reduce any of the
24 significantly -- significant positive XRP price
25 impacts that you identified by any statistically

1 [REDACTED]
2 significant negative XRP price impacts you
3 identified.

4 A. Sorry.

5 I -- I -- I think that's true.

6 But -- but you're -- you're talking
7 about reducing one thing by another. I
8 didn't -- but I -- I think I understand what
9 you're saying. And I think that what you're
10 saying is correct.

11 But --

12 Q. Well, I want to make sure --

13 A. -- maybe not how I would have
14 described it.

15 Q. I want to make sure the record is
16 clear, Dr. [REDACTED]

17 As I understand the methodology for
18 your counterfactual price analysis, you
19 effectively replaced statistically significant
20 positive price impact on XRP that occurred
21 within a day, two, or three, of a Ripple
22 announcement.

23 Correct?

24 A. If there were no significant negative
25 returns in -- in that --

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Q. And that -- that is exactly my point.

In other words, if you saw a statistically significant price impact on Day 3, and an either statistically significant negative or any negative price return on Day 2, you would not net them out such that the amount of the replacement would be reduced by whatever negative price returns you observed?

A. I wouldn't -- in that case I'm not making any adjustments to anything. So, therefore, no, I'm not netting one thing out from another.

I'm leaving -- in the case you describe, I'm leaving the data alone. So, just so we're clear, if -- if the price dropped but then increased a lot such that if we looked at the three-day cumulative return, we might say, Oh, well, it was significantly positive, I take the, what I would say is conservative approach to say, Well, I agree it's positive, but because of the drop, I'm not going to say that that three-day positive is due to the event.

Now, look, it might be. It might be.

But I'm not going to say that it is.

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So I'm going to leave all of those prices alone. Meaning in my counterfactual price history, you will see the drop followed by the rise.

Q. I was with you until the last sentence.

In -- in what aspect of your counterfactual calculations will you see the impact of the drop followed by a rise?

A. Because I'm not making any adjustment. I'm leaving the drop and the rise in place.

I'm not adjusting them.

They were there before, they're there now.

Q. And is it only for drops that are not statistically negative?

MR. SYLVESTER: Objection.

A. No, it's -- it's if I see a statistically significantly negative drop somewhere in this history, somewhere in these three days, I -- I then am taking the position of -- sort of in an overabundance of caution, I'm saying, Well, I am, therefore, not going to say that -- even though I see a significant

1 [REDACTED]
2 increase measured over all three days, I'm not
3 going to say that that has anything to do with
4 the event.

5 Again, it might. It might. But I'm
6 not willing to say that it does.

7 So, I leave those price -- I leave
8 those returns, strictly speaking, I leave those
9 returns alone. I don't change any of them.

10 So, just -- just to throw out numbers,
11 as -- as an example, if -- the price starts at a
12 dollar, it drops to 80 cents, and let's say that
13 that's significant. But then it rebounds to a
14 dollar fifty by Day 3. Okay? Hypothetical.

15 And somebody might look at that and
16 say, Well, the three-day cumulative return going
17 from a dollar to a dollar 50, is significantly
18 positive. Okay, that might be true.

19 Somebody might say, Well, so then you
20 could say that that increase from a dollar to a
21 dollar 50 is due to the event.

22 I agree. Somebody might say that.
23 And they might be right.

24 I'm not going to say that because when
25 I look at that, I say, Yes, I agree with those

1 [REDACTED]
2 facts, but I see this drop, and I think, I think
3 that arguably muddies the water, so I'm not
4 going to say that the increase from a dollar to
5 a dollar 50 was due to the event. I'm not going
6 to adjust any of these prices. And I'm going to
7 move on to the next event.

8 So then my counterfactual price
9 history will still have the dollar, down to
10 80 cents, back up to a dollar 50.

11 Is that clear?

12 Q. I -- you've answered the question, and
13 we'll -- we'll move on.

14 And just to make sure the record is
15 clear, on a day in which you observe a
16 statistically significant positive return, and
17 the announcement that you correlate with that
18 return occurs late in the 24-hour window that
19 you consider that event day, you don't make any
20 adjustment for the run-up in price prior to the
21 announcement.

22 Correct?

23 MR. SYLVESTER: Objection.

24 A. Literally that's correct. I -- I was
25 not using any intraday price data here, as we

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discussed in the prior deposition.

In some cases, we are really having only, you know, a few hours of response, but I didn't -- I didn't factor that into -- into the analysis, no.

Q. Did you perform an analysis in which you replaced the -- the actual returns that occurred over a four-day cumulative period?

A. Over four days, that's the question?

Q. Yes.

A. I -- I don't believe so. I did -- I did three and I did one. I don't believe I ever did four.

Q. You didn't do seven?

A. Not -- I -- I don't think so. I don't remember doing seven.

Q. And why did you limit your analysis to just three days?

A. Well -- well, again, this was primarily a response to an assertion from Professor Fischel that even if we attribute these abnormal returns to Ripple Labs, it doesn't matter.

So the -- the genesis of this was to

1 [REDACTED]
2 say, Okay, let's associate the abnormal returns
3 to Ripple's actions and see what happens.

4 So that was -- that was the -- the
5 genesis. And since my opening report focused on
6 three days, I -- I continue to focus on
7 three days for the supplemental report.

8 I also did a one-day version of that,
9 which I view as very conservative, to say even
10 if we want to -- even if we're not comfortable
11 saying that the impact could take as long as
12 three days, even if we want to say no, no, no,
13 the impact can -- can't possibly take more than
14 a day, let's stop the clock there, I -- I show
15 the results under that assumption as well.

16 But I start with three days because
17 that was the basis of my opening report.

18 Q. And again, just so the record's clear,
19 in your supplemental report -- and I believe
20 it's using Model 1 -- you reduce approximately
21 23 days out of a total of, say, 2400 days,
22 during the entire period. Correct?

23 A. Again, keeping in mind that some of
24 those events might be associated with two days
25 or three days, so it may be more than 23 days.

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2 And I -- I don't know the number of days.

3 Q. But approximately 1 percent of the
4 days.

5 A. On -- on the order of -- of -- is it
6 1 percent? Yes, on the order of 1 percent.

7 And just to -- so the math is a little
8 easier, in the one-day analysis, of course, it's
9 one to one between events and days. So in the
10 one-day analysis where I think it's 14 events,
11 it is, therefore, also 14 days. We know that
12 answer.

13 With the three days, I just, sitting
14 here today, I don't know exactly how many days
15 were involved.

16 Q. All right. And you didn't replace any
17 of the actual XRP returns that were
18 statistically lower than the returns that your
19 models estimated, correct?

20 A. Correct. Since I had not established
21 any sort of link between events and negative
22 returns, I, therefore, wouldn't say that the
23 news caused a negative return; and so,
24 therefore, I did not replace statistically
25 significant negative abnormal returns. That's

1 [REDACTED]
2 correct.

3 Q. Just so the record is clear, though,
4 the regression models that you utilized would
5 have allowed you to both identify statistically
6 significant negative returns and to replace
7 those returns with estimated returns, correct,
8 had you wanted to do so?

9 A. I agree that the information is
10 available.

11 But I -- but there would be no
12 economic foundation for doing it. But I agree
13 with you that the information is available to do
14 that exercise.

15 Q. And that would be true even if the
16 statistically significant negative return
17 coincided with a Ripple announcement. Correct?

18 MR. SYLVESTER: Objection.

19 A. Well, again, I tested in the opening
20 report whether there was any evidence of a -- a
21 correlation between the news and negative
22 returns. And I was -- I never found any such
23 evidence.

24 So I -- I don't think there's any
25 evidence -- I haven't seen any evidence to

1 [REDACTED]
2 suggest that the news would cause a negative
3 return, which is why I wouldn't make that -- the
4 replacement that you suggest.

5 But the information to do that is
6 certainly available.

7 Q. And mathematically, had you replaced
8 the statistically significant negative returns
9 that your model identified, it would have
10 narrowed the gap between the observed XRP price
11 and the counterfactual price that you
12 calculated. Right?

13 A. Well, directionally, that's
14 unambiguously true.

15 But I will say that in many cases, I
16 don't -- I think there is frequently zero,
17 sometimes one, maybe two significantly negative
18 events. So I would be -- I haven't done it.
19 Again, I don't think it's meaningful to do.

20 But I -- I don't know the practical
21 implications of making those substitutions. But
22 directionally, you're correct; it would narrow
23 that difference.

24 Q. You said that you thought there were
25 one, maybe two statistically negative price

1 [REDACTED]
2 returns. I'm asking you a question.

3 A. Yeah.

4 Q. Do you know, based on the output from
5 your 20 regression models, how many trading days
6 XRP's actual returns were worse or lower than
7 the returns that your models estimated?

8 MR. SYLVESTER: Objection.

9 A. So -- so you're asking, do I know how
10 many times the abnormal return was negative? Is
11 that your question?

12 Meaning the actual return was less
13 than the expected return?

14 Q. Correct.

15 A. The answer to your question is, no, I
16 don't know.

17 I -- the answer to your question is,
18 no, I don't know.

19 Q. All right. I take it from that
20 answer -- but I want to make sure the record is
21 clear -- that you don't know on how many days on
22 which there was a Ripple announcement that the
23 actual returns were statistically significantly
24 lower than the returns your model estimated?
25 I'm now focusing on statistically significant

1 [REDACTED]
2 negative abnormal returns.

3 MR. SYLVESTER: Objection.

4 A. So, sitting here today, I don't
5 remember. I know that it's -- I can say that
6 it's not very many, because it is certainly not
7 more than would be expected by just random
8 chance.

9 But I don't know how -- I don't know
10 the number. I seem to recall that it's very
11 small. But that's -- but to be clear for the
12 record, that is me sitting here with sort of a
13 recollection of looking at some numbers a few
14 months ago, and I could be wrong.

15 But I -- but I -- but I can say,
16 because I tested it and that test is reported in
17 the opening report, that -- that it is not
18 enough to infer any correlation between the news
19 and negative returns.

20 Q. Did you go through the process of
21 tabulating, counting, examining the number of
22 instances in which one of your 20 regression
23 models predicted a return in comparison to which
24 the actual return was statistically significant
25 and negative?

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A. Well, I think this is a question you just asked a moment ago. Do I know how many times the actual return was less than the expected return. And the answer to that question is, no, I don't.

Q. My question was a different one.

I understand, as you sit here today, you don't remember that number.

My question was, did you go through the exercise of looking for that number and considering it?

MR. SYLVESTER: Objection.

A. Well, yes, in -- in a version of it -- so, yes, for the news days and the event days in question, I went through the exercise of -- of determining whether there was -- how many significantly negative returns were associated with the news days in question, because, again, I tested that question. And I report that test in my opening report.

So for the purposes of conducting that test, it's necessary to do the tabulation that you're describing.

Q. And my question, so the record is

1 [REDACTED]
2 clear, in connection with the counterfactual
3 analysis that you set forth in your supplemental
4 report, did you revisit that data to remind
5 yourself or to consider on how many occasions
6 there were statistically negative price impacts
7 on XRP?

8 MR. SYLVESTER: Objection.

9 A. Well, for the purposes of the
10 supplemental report, no, I did not revisit and
11 remind myself of the number of days that
12 we're -- that we're describing, no.

13 Q. Now, I'm just -- I'm going to ask you
14 a methodological question. I want to know
15 whether you went through the mental exercise or
16 the econometric exercise of determining on how
17 many days one day after a Ripple announcement
18 the actual XRP returns were statistically lower
19 than the returns your models estimated.

20 A. Significantly lower?

21 For the opening report or the
22 supplemental report?

23 Q. Supplemental report.

24 A. No. Again, for the supplemental
25 report, while my -- as part of the methodology,

1 [REDACTED]
2 I'm -- I'm -- the -- the computer code is
3 necessarily checking the question you're asking,
4 because that's part of the methodology.

5 I did not output that tabulation or
6 review it. But the -- the computer code is
7 checking what you're asking.

8 Q. Does it also check for the number of
9 days in which there is a statistically
10 significant negative XRP price return on the
11 third day after the event?

12 A. It is checking, yes.

13 Q. So that information was available to
14 you.

15 A. Yes.

16 Q. In connection with the preparation of
17 your -- of the opinions expressed -- withdrawn.

18 In connection with the opinions that
19 you're offering in your supplemental report, did
20 you conduct any analysis or investigation as to
21 whether any of the, say, 400-some events that
22 you excluded from your methodology in the
23 opening report were associated with a
24 statistically significant negative return of
25 XRP?

1 [REDACTED]
2 A. Well, I don't know that I want to
3 accept your characterization of excluding them
4 from the methodology.

5 The methodology was to categorize news
6 and test certain categories versus others.

7 But setting that aside, for the
8 purposes of my supplemental report, I did not
9 investigate the frequency with which the
10 excluded events were associated with significant
11 negative returns. No, I did not.

12 Q. Dr. [REDACTED] I would like to show you now
13 what has been marked as Exhibit 15.

14 (Table of abnormal negative return
15 dates was marked [REDACTED] Exhibit 15 for
16 identification, as of this date.)

17 Q. Do you recognize this table?

18 A. Not particularly. I don't know that
19 I've seen this table before.

20 Q. I'll represent to you that this is
21 what we believe is a document that sets forth,
22 based on your own work papers and the results of
23 your various regressions, each day in which your
24 models identified a significantly negative
25 abnormal return under the constant mean model,

1 [REDACTED]
2 which is your Model 1.

3 MR. SYLVESTER: Can I ask a clarifying
4 question? Is this -- is this output from
5 Dr. [REDACTED] work papers, or is it something
6 that defendants created?

7 MR. FIGEL: We created it, based on
8 the work papers. It's a culling of the
9 information in the work papers.

10 Q. All right. Now, the column on the
11 left indicates how many of those days there was
12 a Ripple announcement -- I'm sorry -- how many
13 of those days there was a -- give me one second.

14 A. Sure.

15 Q. So the column on the left is days in
16 which there was statistically significant
17 abnormal negative returns. And the second
18 column, the zero or the 1, represents whether
19 there was a Ripple announcement on that date.

20 A. May I ask, a Ripple announcement of
21 what type?

22 Q. Of the type that you included in your
23 methodology, one of the 100-some days.

24 A. So not just any Ripple announcement
25 but -- but specifically one of those select

1

2 categories. Okay.

3 Q. Right.

4 So based on this, on how many days
5 does your constant mean return model, which is
6 Model 1, indicate that there was a statistically
7 significant negative return for XRP on the same
8 day that Ripple announced an event?

9 MR. SYLVESTER: I just want to be
10 clear that you're asking him to -- to
11 interpret a document that defendants
12 created.

13 MR. FIGEL: Correct.

14 MR. SYLVESTER: That he's never seen
15 before.

16 MR. FIGEL: Well, he's seen the data,
17 but fair enough, he -- I don't believe he's
18 seen this particular document.

19 A. Well, so the number -- the -- the
20 information that's in this table, if I'm not
21 missing something, would indicate four, one,
22 two, three, four -- I count four days in this
23 table where the news indicator is a 1.

24 Q. Correct.

25 A. Which would mean -- from what you have

1 [REDACTED]
2 told me, would mean that there are four days
3 with a -- a -- a Ripple announcement of the type
4 that we've generally been considering and a
5 significant negative abnormal return.

6 Q. So let's go just down this document.
7 I think the first one which indicates the
8 association between a Ripple event and a
9 negative return is on -- and this is the -- I
10 guess the European formulation so January 16,
11 2018.

12 Are you with me?

13 A. I see that, yes.

14 Q. Right. And the -- the actual return
15 was a negative 35 percent. The return predicted
16 by your Model 1 was positive 1.46 percent, and
17 so the abnormal return is the sum of those two,
18 36.79 percent?

19 A. The difference between the two, but
20 yes.

21 Q. And this would be a price return that
22 you would not include in your counterfactual
23 price methodology, correct?

24 A. That's correct. Yes.

25 Q. And that would be true for each of the

1 [REDACTED]
2 four event days indicated on this document.

3 Correct?

4 MR. SYLVESTER: Let me just place an
5 objection on the record. I understand
6 defendants' representation that this
7 document was culled from Dr. [REDACTED] work
8 product.

9 He hasn't seen it before. I think
10 it's unfair to ask him to endorse data that
11 was compiled by defendants that he's never
12 seen.

13 So I just am going to object entirely
14 to this line of questioning based on
15 defendants' work product.

16 MR. FIGEL: I understand your
17 objection, and I'm not asking him to adopt
18 the accuracy. I'm representing to you this
19 is our good-faith effort to replicate the
20 information that's in his work papers.

21 And without asking him to obviously
22 confirm that, I'm asking him to testify
23 about whether he would or would not have
24 included in his counterfactual analysis the
25 statistically significant negative price

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2 returns.

3 And I think the record's clear that he

4 would not.

5 A. For -- for the reasons we've

6 discussed.

7 Q. And I believe you said it's a truism,

8 but just to make sure it's clear, that had you

9 included these four statistically negative

10 abnormal returns in your counterfactual price

11 analysis, that would have increased your

12 counterfactual price.

13 Correct?

14 MR. SYLVESTER: Same objection.

15 A. I mean, arithmetically, that's true.

16 But again, as I explained, there would be no

17 foundation, there would be no economic reason to

18 do that.

19 I tested, explicitly tested the

20 question of whether these news events were

21 correlated with negative returns, and I -- I

22 found no evidence that they were.

23 Therefore, I'm not saying, and I don't

24 know that anybody is saying, that there is any

25 reason to think that the news caused the events.

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These events.

So I wouldn't -- I didn't do it and I wouldn't do it.

But arithmetically, yes. If we adjusted these four, the resulting counterfactual price would presumably be higher if we adjusted these four.

Q. And just to make sure the record's clear again, because you couldn't do it and wouldn't do it, you're not in a position today to offer testimony about what your counterfactual price would have been had you replaced these four statistically negative XRP price returns with the estimated price returns in your Model 1.

MR. SYLVESTER: Same objection. And vague.

A. I mean, I -- I -- I'm certainly not prepared to make any comment about what -- the results of the exercise you're describing to me.

MR. SYLVESTER: Reid, we're again at about an hour in. Is now a good time to take a break?

MR. FIGEL: Good.

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MR. SYLVESTER: Great.

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THE VIDEOGRAPHER: This ends Unit 3.

4

We're off the record at 5:17.

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(Recess from 5:17 to 5:43.)

6

THE VIDEOGRAPHER: This begins Unit 4.

7

We're on the record at 5:43.

8

MR. FIGEL: Dr. [REDACTED] I would like to

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now show you what has been marked as

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Exhibit 16.

11

(Results of each of Dr. [REDACTED] 20

12

models with respect to predicted returns

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for May 16, 2017, was marked [REDACTED] Exhibit

14

16 for identification, as of this date.)

15

Q. Again, I'll represent to you this is

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our effort to put in a document the results of

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each of your 20 models with respect to predicted

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returns, for May 16, 2017, which is the date

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that you discuss in your supplemental report?

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MR. SYLVESTER: So again for the

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record, Exhibit 16 is defendants' work

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product.

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MR. FIGEL: Correct.

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MR. SYLVESTER: Before we get started,

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I'll just make the same objection I made

1 [REDACTED]
2 before, which is he hasn't seen this
3 document before, he has no way of knowing
4 whether or not the numbers in these are a
5 correct interpretation of his work product,
6 and it's unfair to be asking him these
7 kinds of questions about something that he
8 hasn't seen.

9 MR. FIGEL: Right.

10 Q. Dr. [REDACTED] I'm not asking you to adopt
11 or ratify the accuracy of the report. We'll
12 represent this is our good-faith effort to
13 reproduce, in this format, information that was
14 produced as part of The Brattle Group's work
15 papers.

16 And if you if go down the first
17 vertical column, you'll see it's Models 1
18 through 20, which refers to the 20 models you
19 used in the regression analysis that you've
20 referred to in your reports.

21 And the second column gives the
22 predicted returns using those models for the
23 events of May 16, which is the date you refer to
24 in paragraph 11 of your supplemental report, in
25 which you talk about the announcement about the

1 [REDACTED]
2 escrow of the XRP tokens.

3 You with me?

4 A. Yes.

5 Q. And just take a look down here.
6 You'll see that the models predict very
7 different price returns. Correct?

8 MR. SYLVESTER: Same objection.

9 A. Well, you used the word "very." I
10 agree they predict different price returns.

11 Q. Well, would you -- would you agree
12 that the -- assuming this is accurate, and I --
13 you know, I believe it is -- that the predicted
14 return of 1.79 from Model 1 is materially
15 different than the 26.99 predicted return in
16 Model 2?

17 MR. SYLVESTER: Same objection.

18 A. I -- I agree they're different, yes.

19 Q. And do you recall, in connection with
20 the preparation of your reports and the opinions
21 expressed in your report, focusing on the
22 different predicted returns for May 16, that was
23 generated by each of the 20 models?

24 MR. SYLVESTER: Objection.

25 A. I'm sorry, you're asking me in -- I'm

1

2 sorry, could you repeat the question?

3 Q. Yeah. Well, I'll try and dumb it down
4 for you. I don't mean dumb it down, but I'll
5 try and simplify it.

6 Do you recall being aware that the
7 predicted returns for May 16, based on the
8 20 different models in your regression analyses,
9 resulted in this range of predicted returns?

10 MR. SYLVESTER: Same objection.

11 A. No, I don't -- I don't recall having
12 that awareness, no.

13 Q. All right. And assuming that this is
14 correct, Models 2 and 4 show a statistically
15 insignificant predicted return, correct?

16 MR. SYLVESTER: Same objection.

17 A. You asked did they show a
18 statistically insignificant predicted return?

19 Q. Uh-huh.

20 A. With respect -- I don't think that's
21 what you meant to ask. I think you meant to
22 ask, Do they show a statistically and
23 significant abnormal return.

24 Q. I thought that's what I was asking
25 you, but I'll take your clarification.

1

2 The predicted returns on Model 1 and
3 Model 3 --

4 A. Uh-huh.

5 Q. -- are relatively low single-digit
6 percentages, correct?

7 MR. SYLVESTER: Objection.

8 Q. The return --

9 A. I would agree with that
10 characterization, yes.

11 Q. The model returns on -- the predicted
12 returns on Models 2 and 4 are in the range of
13 27 percent.

14 Correct?

15 MR. SYLVESTER: Same objection.

16 A. Yes, correct. Those are the numbers
17 that are here.

18 Q. All right. And in addition, you'll
19 see that some of the predicted returns on your
20 models are negative numbers. Correct?

21 MR. SYLVESTER: Same objection.

22 A. I -- I see that in the sheet here,
23 Exhibit 16, there are some negative numbers in
24 the "Predicted Return Column," yes.

25 Q. Which of these 20 models generated the

1 [REDACTED]
2 correct predicted return for XRP on May 6 --
3 May 16, 2017?

4 MR. SYLVESTER: Objection.

5 A. Well, your -- the premise of your
6 question is -- is faulty in that you're saying
7 there is a correct expected return. Different
8 models can generate different expected returns.
9 I don't know that there's a basis to say that
10 one is correct and another is incorrect.

11 They are different.

12 Q. So if I understand your answer, you
13 can't say that any of the models generated what
14 you believe to be the correct counterfactual
15 return for XRP on May 16, 2017.

16 Correct?

17 A. I -- when I -- what I'm saying is
18 that, presenting the question as though there is
19 a correct number to be found is not the right
20 way to frame the question. They produce
21 different estimates.

22 That's all that I can say.

23 Q. And as you sit here today, assuming
24 these are correct, which do you think is the
25 best estimate?

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MR. SYLVESTER: Same objection.

A. Sitting here today, I don't have --
I -- I don't have a view of which I think is the
best estimate.

As I've testified, I think, today, and
probably in the previous session, I think all 20
models are reasonable specifications. And my
results, both in my opening report and
supplemental report, are consistent across all
20 models.

I don't have a point of view that one
model is better or more correct than another
model. I haven't been asked to form that view,
and I have not yet formed that view.

Q. So you have no opinion, for instance,
whether the better prediction for the XRP price
return on May 16, 2017, was the approximately
40 percent positive return that was generated by
model 20, and not the negative 1.23 percent
negative return generated by model 11.

MR. SYLVESTER: Same objection.

A. I have not formed a view. Clearly,
you know, the pattern in these numbers is --
indicates that those models that control for the

1 [REDACTED]
2 account growth in XRP are generating a higher
3 predicted return on this day than those models
4 that do not control for account growth in XRP.

5 That's what this -- that's what this
6 table seems to indicate.

7 Q. So you can't identify which of these
8 models produces the most reasonable estimate of
9 the counterfactual value of XRP on May 16, 2017.
10 Correct?

11 MR. SYLVESTER: Objection.

12 A. I'm not -- I'm not in a position to
13 say which of these models I think is better than
14 any other model. Model 1 and Model 11 are
15 models that are found in the peer-reviewed
16 literature of event studies in XRP markets. I
17 can say that.

18 The other models are, I think,
19 reasonable models of XRP returns. And on this
20 particular day in this particular case, they're
21 generating different predictions of the expected
22 return on that date.

23 Q. And if you go to the far-right column,
24 you'll see the header, Does the counterfactual
25 price analysis replace the actual return with

1

2 the predicted return?

3 And you'll see yeses and nos.

4 Again, I'm not asking you to confirm
5 the accuracy of these. But fair to say that on
6 a given day, any given day, with 20 different
7 regression models, depending on the output of
8 that model, under your methodology, your
9 counterfactual methodology, there would be
10 output that would cause you to replace the
11 actual return with an estimated return, and
12 there would be outputs for which you did not
13 replace the actual return with estimated
14 returns?

15 MR. SYLVESTER: Objection.

16 A. I -- I agree that on a particular
17 day -- and this is, again, taking these numbers
18 as -- as offered -- this would appear to be such
19 a day where some models would suggest -- would
20 indicate that the abnormal return was
21 significant, and some models would suggest or
22 indicate that it was not significant.

23 Therefore, per my procedure, I would
24 replace the abnormal return on this day, using
25 some models, and not others.

1 [REDACTED]
2 It remains true that no matter which
3 model you want to pick or focus on, the
4 counterfactual prices that result over the
5 history of XRP are, I would say, fairly similar.

6 Q. Dr. [REDACTED] can you state with certainty
7 that the Ripple announcement on May 16, 2017,
8 did or did not result in a statistically
9 significant price impact on XRP, based on these
10 models?

11 MR. SYLVESTER: Same objection.

12 A. I have not formed an opinion on
13 whether I think the announcement of May 16
14 caused a statistically significant price impact.
15 That was outside the scope of what I was asked
16 to do.

17 I was asked to establish the principle
18 of whether there is any connection between
19 Ripple Labs and XRP markets, not to establish or
20 evaluate whether any particular announcement
21 caused a price reaction.

22 It was outside the scope of my mandate
23 to form the opinion you're suggesting. I have
24 not formed it.

25 Q. So you're not offering an opinion that

1 [REDACTED]
2 the Ripple announcement on May 16, 2017, did or
3 did not -- withdrawn.

4 You're not offering an opinion that
5 the Ripple announcement on May 16, 2017, had a
6 statistically significant positive price impact
7 on XRP, correct?

8 A. I was asked to investigate whether
9 there is evidence of a link between Ripple Labs
10 and XRP markets. I found that there was.

11 Absent that foundational work, it
12 wouldn't even make sense to ask the question
13 that you're asking.

14 So the work that I did is a -- is a
15 prerequisite to the question that you're asking.
16 I was not asked the question that you're asking.
17 I was not asked to form an opinion about whether
18 I thought the announcement of May 16 caused a
19 reaction. I don't have an opinion one way or
20 the other whether the announcement of May 16
21 caused a price reaction. I wasn't asked to do
22 that.

23 Q. And I don't want to -- we have limited
24 time, and I don't want to belabor the point.
25 But were I to show you a similar document that

1 [REDACTED]
2 showed the output from the regression analyses
3 for any day on which there was a Ripple
4 announcement, it -- as I understand your
5 testimony, you will not be in a position to
6 offer testimony whether on that day that Ripple
7 announcement did or did not have a -- cause a
8 statistically significant price return for XRP?

9 MR. SYLVESTER: Objection.

10 A. It -- it -- it was not in the scope of
11 what I was asked to do to form any such
12 opinions. I have not formed any such opinions.

13 Q. And that would be true for each of the
14 100 days that you have tested in your various
15 regression analyses. Correct?

16 MR. SYLVESTER: Objection.

17 Q. Just -- I'm sorry. Let me make the
18 record clear. The approximately 100 Ripple
19 event days.

20 MR. SYLVESTER: Objection.

21 A. As I said, I was asked to investigate
22 whether there is a link, so let's back up for a
23 second.

24 Very often there are disputes about
25 whether a particular corrective disclosure

1 [REDACTED]
2 caused the stock price of XYZ Enterprises to
3 drop. People argue about that.

4 Part of that dispute is not the
5 question of whether it's possible that a
6 corrective disclosure might have caused the
7 stock price to drop. Everybody agrees --
8 everybody agrees that it's possible.

9 The question is, did it?

10 And people go about answering that,
11 and there are arguments. And some will say yes,
12 and some will say no.

13 Here if I had asked the question, do I
14 think the Ripple announcement caused a reaction
15 in XRP markets, I haven't even established that
16 it's possible that it might have. Right? That
17 was in dispute. People would not have agreed
18 with me that it was even possible that it might
19 have, let alone whether it did. They wouldn't
20 have agreed that it was even possible.

21 So my opening report is dedicated
22 largely to that question of, is it even possible
23 to think that the announcement caused the
24 reaction? That's what I focused in on, on my
25 opening report. And my supplemental report, as

1 [REDACTED]
2 we explained this afternoon, says, okay,
3 assuming it did, what does that mean for prices
4 and what's the economic impact?

5 At no point was I asked to form an
6 opinion of whether I thought a particular
7 announcement caused a reaction.

8 So if you ask me about May 16, I'm not
9 prepared to offer an opinion. And if you ask me
10 about some other date, I'm not prepared to offer
11 an opinion.

12 Q. Let me show you now what will be
13 marked as Exhibit 17.

14 (Document describing all of the days
15 in which Dr. [REDACTED] regression analysis
16 identified a statistically significant
17 abnormal price return in XRP was marked
18 Exhibit 17 for identification, as of this
19 date.)

20 Q. Again, just so the record is clear, so
21 Mr. Sylvester can make his objection, this
22 represents our work product, which was an effort
23 to identify the days from your work papers on
24 which there were abnormal positive --
25 statistically significant abnormal positive

1 [REDACTED]
2 returns in XRP on the -- on the various event
3 days.

4 MR. SYLVESTER: I will continue to
5 object to use of the defendants' work
6 product that Dr. [REDACTED] has never seen nor
7 had the opportunity to verify in this
8 deposition. So when I say "same
9 objection," that's the objection.

10 Q. So do you understand, in substance,
11 what this document, we believe, purports to
12 show? It is all of the days in which your
13 various regression -- which your Model 1
14 regression analysis identified a statistically
15 significant abnormal price return in XRP.

16 A. One-day price return.

17 Q. One-day price return, yes.

18 A. I understand what this is purporting
19 to convey, yes.

20 Q. All right. And if you go down the
21 second column, you'll see "news" and it's
22 binary. It's 0 or 1. And if there's a 1, that
23 means that is a day in which you had identified
24 a Ripple event that was included in -- in your
25 various reports.

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MR. SYLVESTER: Same objection. He has no basis to know that one way or the other.

Q. And you can count them up, but I believe there's 14.

A. There should be 14.

Q. And there's approximately 101 total event days. That's consistent with the results that found and reported in your opening report and your supplemental report, correct?

MR. SYLVESTER: Same objection.

A. I remember the 14. I don't remember the 101, but that -- that doesn't -- I have no reason to think that that's not -- not the right number.

Q. It's approximately a hundred, right?

A. I --

MR. SYLVESTER: Objection.

A. I think so, but I don't remember, but again, I -- I think so.

Q. It's in -- it's in your report.

So let's go, if you would -- I just want to make clear, this is the document I'm going to spare you going through day by day.

1 [REDACTED]
2 But you would not be in a position,
3 even based on Model 1, to say that the Ripple --
4 on days in which there's a 1, that the Ripple
5 announcement caused a statistically significant
6 price impact on that day.

7 Correct?

8 MR. SYLVESTER: Same objection.

9 A. Well, I would say that Model 1
10 indicates that it did. That's -- that's what I
11 would say.

12 Q. But would you be able to offer the
13 opinion, based on the results of Model 1, that
14 the Ripple event on that date caused a
15 statistically significant positive XRP price
16 return?

17 MR. SYLVESTER: Same objection.

18 Q. This is a causation question. In
19 other words, based on the output of Model 1,
20 could you say that the -- that an XRP
21 announcement caused statistically significant
22 positive XRP price return?

23 MR. SYLVESTER: Objection.

24 A. Well, I'm trying to understand the
25 question.

1 [REDACTED]
2 Model 1 -- using Model 1 and using
3 Models 1 through 20, but also using Model 1, I
4 tested various questions as outlined in my
5 opening report.

6 And based on that, I concluded that
7 there's a link between Ripple Labs and XRP
8 prices, that XRP prices can react to news of
9 Ripple Labs.

10 Model 1 is certainly consistent with
11 that opinion.

12 So having -- having established that,
13 if you then ask me, based on the results of
14 Model 1, do I think that the news on some date
15 caused a certain reaction, I would say -- so I
16 can I would say, yes, based on the results of
17 Model 1, that's what that would appear to
18 indicate.

19 I -- and I haven't -- I haven't asked
20 myself the question you're asking.

21 But the way you framed it, I think I
22 would say, yes, based on the results of Model 1.

23 Q. And if I showed you the results of the
24 other 19 models and we had the same type of
25 differing outputs on price estimates and

1 [REDACTED]
2 abnormal price returns, would you continue to
3 say that Model 1 reliably allows you to offer
4 the opinion that a -- a particular Ripple
5 announcement resulted in a statistically
6 significant positive abnormal price return for
7 XRP?

8 MR. SYLVESTER: Objection.

9 A. Well, that's a different question.

10 Q. It is a different question. I'd like
11 to -- I'd like an answer to the different
12 question, please.

13 A. Well -- but the premise of your
14 different question is different from the
15 previous question.

16 The previous question was,
17 essentially, based on the results of Model 1,
18 does it indicate one thing or another.

19 Now you're asking me, do I think that
20 Model 1 is -- is -- so if -- if you showed me
21 the results for different models, I would say
22 based on the output of whatever model we're
23 looking at, it says one thing or another.

24 Q. And based on that, on -- you could
25 offer five or six different opinions, depending

1 [REDACTED]
2 on the model, as to whether a particular
3 announcement by Ripple caused a statistically
4 significant abnormal price return for XRP?

5 A. Well --

6 MR. SYLVESTER: Objection.

7 A. Again, I -- I have not been asked to
8 form opinions of that type. I'm not -- I have
9 not formed opinions of that type.

10 All I can say is based on the output
11 of whatever model we're looking at, there's
12 evidence that it did on this day or that day or
13 the other day.

14 If you then want to say, Well, what is
15 your opinion about what happened on that day, I
16 haven't reached an opinion about what happened
17 on that particular day. I --

18 Q. So let's --

19 A. -- I don't know.

20 Q. Let's look on --

21 MR. SYLVESTER: Let him finish.

22 MR. FIGEL: You good?

23 MR. SYLVESTER: Ask him.

24 A. I'm finished.

25 Q. Let's look at -- I think it's the

1



2 second page, and again, this is European
3 Convention, so it's May 4, 2017?

4 A. I'm sorry, where are we looking?

5 Q. Well, look at the date in the first
6 column, European Convention, May 4, 2017.

7 A. May 4, 2017. Okay.

8 Q. And you'll see an actual -- actual
9 price return of 26.58 percent?

10 MR. SYLVESTER: Same objection.

11 A. I see that number in this table. Yes.

12 Q. And again, you see the binary zeros
13 and ones. You'll see a zero on that line -- or
14 on that row?

15 MR. SYLVESTER: Same objection.

16 A. I -- I see a zero on that row, yes.

17 Q. And that suggests that there was no
18 Ripple news event on that day?

19 MR. SYLVESTER: Same objection.

20 A. It suggests that there was no Ripple
21 news event in the categories that we're
22 considering on that day.

23 Q. Right. Fair enough.

24 And so you're not offering any opinion
25 as to whether Ripple or a Ripple announcement

1 [REDACTED]
2 caused the 26.58 percent price return on May 4,
3 2017.

4 Correct?

5 MR. SYLVESTER: Same objection.

6 A. I have not been asked, and I have not
7 developed an opinion about what I think happened
8 on May 4, 2017.

9 Q. And you undertook no investigation to
10 determine what may have caused the 26.58 percent
11 price increase in XRP on that date.

12 Correct?

13 MR. SYLVESTER: Same objection.

14 A. I did not concern myself with -- with
15 what may or may not have happened on May 4,
16 2017.

17 Q. Okay. So let's go to the row for
18 December 29, 2017.

19 A. December 29, 2017.

20 Okay.

21 Q. Again, you'll see no Ripple news event
22 and a 43.53 percent price return.

23 Do you see that?

24 MR. SYLVESTER: Same objection.

25 A. I -- I see those numbers, yes.

1 [REDACTED]
2 Q. So again, because you didn't identify
3 any Ripple news event on that day, you're not
4 offering an opinion that Ripple caused the
5 45.53 percent price increase on that day?

6 Correct?

7 MR. SYLVESTER: Same objection.

8 A. Well, as I -- as I've testified, I'm
9 not offering opinions about causation on any
10 particular day.

11 I -- I would -- just so the record's
12 clear, I would point out, that I don't know, for
13 instance, if there was news on December 28, or
14 December 27, which, when we think about the
15 length of time that it might take for news to
16 react -- so, so the answer to your question is
17 it might -- I don't remember whether there's
18 news on December 28 or December 27 which might
19 be associated with this return. I don't
20 remember.

21 There may be, there may not be.

22 Q. And it wasn't part of your methodology
23 in either your opening report or your
24 supplemental report to try and determine what
25 factor or what causes may have led to the

1 [REDACTED]
2 43.53 percent price increase on December 29,
3 2017, correct?

4 MR. SYLVESTER: Same objection.

5 A. Well, I -- I -- I don't know that
6 that's correct. In other words, I was asked to
7 investigate whether there's a connection between
8 Ripple Labs and XRP markets.

9 And so I was investigating that
10 connection and whether those particular
11 announcements are associated in a -- or if you
12 want to say cause, XRP price increases, so I was
13 investigating that.

14 I just don't remember -- I don't have
15 the list of dates memorized -- whether there
16 might have been news within three days of this
17 particular return that you're talking about.

18 So I'm not going to say that I did not
19 investigate this particular return. I might
20 have investigated this particular return. I
21 don't know.

22 Q. Well, on this chart, are all of the
23 statistically significant --

24 A. One-day returns.

25 Q. -- one-day returns for XRP.

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Correct?

A. Uh-huh.

MR. SYLVESTER: Same objection.

A. Well, that's what you say is here for
Model 1. Yes.

Q. Right. Right.

Did you, as part of the work you did
to reach the opinions in either your opening
report or your supplemental report, engage in
any effort to determine what caused the price
returns on days for which there is not, on that
date, a Ripple announcement?

A. Well, again, as I've explained, I was
looking for a relationship between news and
Ripple prices, and I considered event windows of
three days. I also considered one, I also
considered seven.

So I -- I simply can't say whether or
not there was news within three days of this
date or within seven days of this date, so
I'm -- I -- I simply can't say whether I have
any information about what I think might have
caused this return on this particular date.

I don't remember the sequence of

1



2 dates, and I don't have them all memorized.

3 I -- I -- so I don't know.

4 Q. All right. I understand that you
5 believe you undertook work to identify days on
6 which a Ripple announcement was correlated with
7 a statistically significant XRP price return.

8 Did you engage in any work to identify
9 any other factors that could have been
10 associated with a statistically significant
11 positive XRP price return, in other words, any
12 of the days on this sheet?

13 A. Did I do any work?

14 MR. SYLVESTER: Same objection.

15 A. Well, I -- you know, we testified -- I
16 testified at length the first time about this
17 notion of confounding news, and I took a number
18 of steps to eliminate that as a possible
19 explanation for the events that I was focusing
20 on.

21 To the extent that there were -- I
22 mean, I will say this. I have no doubt that
23 there are other statistically significant
24 abnormal returns which are not associated with
25 Ripple news events in the set of events that I

1 [REDACTED]
2 studied. I have no doubt that such things
3 exist. And, no, I -- it was not necessary for
4 me; and so, therefore, no, I did not investigate
5 what might possibly have happened on that day.

6 Maybe I -- so, no, I did not look to
7 see what might have happened on such days. It
8 wasn't -- it wasn't germane to my opinions. So
9 no, I did not.

10 Q. And similar, for the counterfactual
11 price analysis that you conducted in your
12 supplemental report, you undertook no effort to
13 identify how much of any price of XRP could be
14 attributed to those other factors. Correct?

15 MR. SYLVESTER: Objection.

16 Q. In other words, you -- answer my
17 question. Let's start there.

18 A. Well, again, as I've explained, the --
19 the presumption of my supplemental report, I
20 take from Professor Fischel's argument, which
21 is, even if we assume that the abnormal returns
22 can be associated to the Ripple events in
23 question, it is of no economic significance.

24 So, therefore, that is the basis on
25 which the supplemental report proceeds. It --

1 [REDACTED]
2 it -- if you will, it picks up that challenge
3 and says, Okay, let's make that assumption and
4 let's see what happens, what follows from that
5 assumption. That is the basis of that aspect of
6 my supplemental report.

7 I did not -- the supplemental report
8 does not contribute any new evidence to say that
9 those abnormal returns should be associated with
10 Ripple events. That is the analysis in -- in
11 the opening report. The supplemental report
12 takes the point of view of, let's assume that it
13 does; what is the economic impact that follows
14 from that assumption?

15 Q. I want to take you back to your answer
16 to the previous question. You said, I have no
17 doubt there are other statistically significant
18 abnormal returns which are not associated with
19 Ripple news events in the set of events that I
20 studied. I have no doubt that such things
21 exist.

22 What did you mean by that?

23 A. I --

24 MR. SYLVESTER: Objection.

25 A. I can repeat it. I have no doubt that

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such things exist.

Q. And by "the things," you're talking about other factors that could have been correlated with a statistically significant positive price return for XRP. Correct?

MR. SYLVESTER: Objection.

A. No. No. No. I -- the things in that sentence were statistically significant at positive abnormal returns, not associated with news events that I'm studying.

I have no doubt that such things, such abnormal returns, exist.

Q. And as you sit here today, did you do any investigation as to whether those things, as you described it -- i.e., statistically significant positive XRP returns -- were correlated with any other event or factor?

MR. SYLVESTER: Objection.

A. I was only -- I only studied the events that I studied. I did not study events that I did not study.

So I -- my question was whether these events are associated with significant positive returns in a way beyond what random chance could

1 [REDACTED]
2 explain, and I found that they were. That was
3 the basis of my opening study.

4 I did not ask the question, here is a
5 significant abnormal return that does not appear
6 associated with one of these events; what caused
7 it? I did not concern myself with that
8 question. It was not a relevant question, and I
9 did not investigate that question.

10 Q. All right. Let's go to what you
11 called Thread 2.

12 And let me direct your attention to
13 paragraphs -- looks like it's 20 to 24 of your
14 supplemental report. You with me?

15 A. Paragraph 20 and 24.

16 Yes.

17 Q. And if I can direct your attention now
18 to paragraph 22.

19 Can you read the -- beginning with the
20 second sentence of that paragraph to the end of
21 the paragraph just before the header, Figure 6.

22 A. For example, an investor investing on
23 event day -- i.e., purchasing at the closing
24 price of the day before -- would earn an average
25 28-day return of 63.1 percent compared to an

1 [REDACTED]
2 average return of 21.3 percent earned when
3 investing on any other days. Excluding those
4 28-day holding periods which include event days,
5 the average return falls to just 7.5 percent.

6 Q. Now, you say in this paragraph, For
7 investor investing on the event day.

8 And then you define that as purchasing
9 at the closing price of the day before.

10 Can you explain how purchasing on the
11 day before an event day can be described fairly
12 as investing on the event day?

13 A. Well, that is typically what we mean
14 when we talk about, again, the impact of news.
15 That would be, how did the price change from
16 where it was?

17 So that's the question that I'm
18 asking. If we had purchased before the event
19 and then sold after the event or 3 days after
20 the event or 7 or 28, what return would you have
21 earned on that investment?

22 Q. Well --

23 A. I'm not -- I'm not arguing that this
24 is a strategy that they could have followed.
25 They would have needed to know that the news was

1

2 coming out. That's a different question.

3 This is simply asking this question.

4 If you invest -- if you invested around the
5 news, what kind of return would you have earned?

6 Q. Well, wouldn't it have been more
7 accurate to say, For an investor investing on
8 the day before the event day?

9 A. Well, I -- again, I define the term.
10 The -- the operative point is that when they
11 purchase -- that they purchase XRP before the
12 news comes out. So absent other information,
13 I'm saying, suppose they purchased it at the
14 same price that we observe at the close of the
15 previous day.

16 I'm not saying that they purchased at
17 the close of the previous day. I'm saying they
18 purchased at the price equal to what we observe
19 at the close of the previous day. They could
20 have done it at 11:00 o'clock in the morning. I
21 don't know when they did it. But this -- this
22 experiment is saying, suppose you purchased at
23 that price.

24 Q. And if you were seeking to calculate
25 the return for a purchaser who purchased on the

1 [REDACTED]
2 event day, in other words, after the
3 announcement of the event, you would have a
4 different starting point for your analysis.

5 Correct?

6 A. Correct. You're asking a different
7 question. Suppose somebody purchased after the
8 announcement came out -- i.e., suppose they
9 purchased at the price, at the closing price of
10 the day of the announcement -- what would --
11 what return would that investor have earned?
12 That is a different question. One could ask
13 that question, and one could answer that
14 question.

15 Q. But you didn't do that methodology,
16 correct?

17 MR. SYLVESTER: Objection.

18 A. I did the methodology as I described
19 here.

20 Q. And you said that there is no basis to
21 assume that a purchaser would have purchased the
22 day before an event, correct? That's an
23 assumption.

24 A. Well, I --

25 MR. SYLVESTER: Objection.

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Go ahead.

A. Again, I didn't -- I didn't speak to the time in which they made the investment. I spoke to the price at which they made the investment.

I'm simply saying, suppose they purchased XRP at the price equal to the closing price of the day before. Again, maybe they did that at 11:00 o'clock in the morning or 3:00 in the afternoon. I don't know. So I was focused on the price.

And then after that -- I'm sorry, sir. I forgot the rest of your question.

Q. I think you answered my question, but let's make sure the record is clear.

Fair to say that had you run your methodology based on the price observed in the market after the announcement, that the return would be lower?

A. It would be different. And I would not be -- I would expect it would be lower, because you're -- what you're describing as an experiment, where we say, suppose the investor lost out on the first part of the reaction to

1 [REDACTED]
2 the news, but managed to capture subsequent
3 reaction to the news.

4 That's a question you could ask. My
5 expectation is, by the way it's formulated, that
6 such an investor would earn a lower return than
7 an investor who captured the full impact of the
8 news.

9 But I haven't done it, and so I don't
10 know for sure.

11 But that would be -- that would be my
12 prior expectation before I ran the number.

13 Q. And the model you ran or the
14 methodology you used, you selected 1-, 3-, 7-,
15 and 28-day holding periods, correct?

16 A. That's correct. Yes.

17 Q. And how did you pick those days or
18 those numbers of days?

19 A. Well, three, again, is a horizon
20 that's been of interest throughout my opening
21 report and this report. One day was meant to
22 show what happens literally in that first day
23 following the -- you know, when the news comes
24 out, which, as we discussed last time, could
25 really just be a few hours.

1 [REDACTED]
2 Seven days, just holding it for a
3 week. I just thought it was interesting to see.

4 And 28 days, just as a longer
5 investment period. I -- I recall Dr. Ferrell
6 focused on 28-day returns. So I simply wanted
7 to show a longer horizon investment return.

8 Q. So you weren't relying on any academic
9 literature, scholarship or publications for
10 the -- the dates you chose. Correct?

11 MR. SYLVESTER: Objection.

12 A. I was reporting results for different
13 horizons that I -- I thought might naturally be
14 of interest.

15 Q. Essentially arbitrary dates, correct?

16 MR. SYLVESTER: Objection.

17 Argumentative.

18 A. Well, I -- I don't know that I agree
19 they're fully arbitrary. Again, a one-day
20 return seems like a natural question.

21 A three-day return, given our focus on
22 three-day event windows, seemed like a natural
23 question.

24 The 28-day return, again, Dr. Ferrell
25 did his analysis in terms of 28-day returns.

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I suppose you could say, did I need to include the seven days? I included it for the sake of interest. If people don't want to look at that column, I -- fine, they're free not to look at it.

Q. I meant you didn't do a similar calculation for a year holding period. Correct?

A. No, I didn't.

Q. You mentioned earlier that you were retained in the LATAM bankruptcy, provided expert testimony, correct?

A. Correct.

Q. Were you deposed in that litigation?

A. I was.

Q. And were -- was your testimony subject to a Daubert motion?

A. No.

Q. And when was that testimony?

A. The deposition was Thursday of last week.

Q. Thursday of last week?

A. Yes.

Q. And other than last week and the time we've spent together, have you been deposed in

1 [REDACTED]
2 any other matter? Other than Rio Tinto, which
3 you testified to earlier.

4 A. No other depositions since we were
5 depose-- since you deposed me in February.

6 MR. FIGEL: Could we go off the record
7 for just a second. I want to see how much
8 time we have.

9 THE WITNESS: Sure.

10 THE VIDEOGRAPHER: This ends Unit 4.
11 We're off the record at 6:28.

12 (Discussion off the record.)

13 THE VIDEOGRAPHER: This begins Unit 5.
14 We're on the record at 6:30.

15 Q. All right. Dr. [REDACTED] if you could
16 look at paragraph 10 of your supplemental
17 report.

18 I want to focus you on the last
19 sentence, where you write, Doing so tells us
20 what XRP prices would have been but for the news
21 about Ripple on event days associated with
22 significant abnormal returns.

23 And you cite to Mr. Fischel's rebuttal
24 report on paragraph 18.

25 A. I see that, yes.

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Q. Can you tell us what you meant by the methodology you believe that Mr. Fischel is endorsing?

A. Well, I --

MR. SYLVESTER: Objection.

A. As -- as I recall, and I'm paraphrasing, my recollection is that Professor Fischel suggests that even if we can associate the abnormal return on those days to Ripple's actions, essentially there's very -- at -- at face value, 23 or 24 days can't amount to much of any economic significance.

Again, I'm paraphrasing. But -- but I recall essentially reading that, or at least that's how I interpreted what I read.

And so that seemed to invite the analysis of -- of doing what I did, which is to say, Very well, let's associate the abnormal return with those events, and see -- see what the -- what the impact of that is.

Q. So the analysis that you contend Professor Fischel endorses is exactly what?

A. The -- to associate the abnormal return with the event. That's the essence of

1 [REDACTED]
2 it.

3 Q. All right. And then you go on to
4 write, Without conducting any analysis of XRP
5 prices, Professor Fischel questions the extent
6 to which XRP holders profited from the event
7 studied in the [REDACTED] report, even assuming the
8 abnormal returns related to those events are the
9 result of Ripple's efforts.

10 Let me just start with, what do you
11 mean with the qualification, Even assuming the
12 abnormal returns related to those events are the
13 result of Ripple's efforts?

14 A. What did I mean by that?

15 So this is the central assumption that
16 we've -- we've discussed at length today, which
17 is to say, if we -- if we assume that the Ripple
18 events caused the abnormal returns, what
19 happens?

20 So that's -- that's the assumption
21 that that's describing.

22 Q. Oh, I see. And so what you're writing
23 is that you think Professor Fischel questions
24 whether, quote, XRP holders profited from the
25 events studied in the [REDACTED] report, even with the

1 [REDACTED]
2 assumption that they're the result of Ripple's
3 efforts?

4 A. Again, I don't have it in front of me,
5 but what I remember -- it's been a while -- is,
6 essentially a formulation of that type. And
7 again, I'm paraphrasing, I'm not quoting, that
8 even if we assume that the abnormal returns are
9 attributable to Ripple's actions, at face value,
10 24 events will -- cannot -- cannot amount to
11 much of economic significance. Again, words to
12 that effect.

13 Q. As I understand your testimony, that
14 is the purpose of the supplemental report that
15 you issued, is to show that mathematically, you
16 do not believe that Professor Fischel is correct
17 that 23 or 24 event days could cause the -- the
18 price of XRP that was reported in the market.

19 Is that correct?

20 MR. SYLVESTER: Objection.

21 A. No, I don't -- I don't think that's a
22 fair characterization. The -- the purpose of
23 the supplemental report, as I -- as I think I
24 explain, is to provide additional quantification
25 of the economic impact of these events.

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How are we going to do that?

Well, there are a couple of ways we could do that. One of the ways that I do that is motivated in -- in -- is motivated, at least in part, by a formulation that Professor Fischel laid out. So that's one way that I demonstrate it.

Another way that I demonstrate it has nothing to do with that, which is the -- the Thread 2, which -- which, in some sense, is a reaction to work that -- that Dr. Marais did.

But the purpose of the supplemental report, as it says, is to provide additional quantification of the economic impact of these events.

It's -- it's not to rebut anybody, just to provide additional quantification of that impact.

MR. FIGEL: All right. Thank you,
Dr. ██████████ That concludes the deposition.

THE WITNESS: Thank you very much.

THE VIDEOGRAPHER: This concludes
today's proceedings --

MR. FIGEL: Oh, wait, let's -- I'm

1 [REDACTED]
2 sorry. I should -- I'm not sure whether
3 Mr. Flumenbaum or Mr. Lopez had questions.

4 MR. SYLVESTER: I don't think they
5 have any time for any questions. We're at
6 4:00.

7 MR. FIGEL: Marty, did you have any
8 follow-up questions, or Jorge?

9 MR. LOPEZ: None for me, thanks.

10 MR. FLUMENBAUM: I have no time, so
11 I'll reserve all my rights.

12 MR. FIGEL: Okay.

13 THE VIDEOGRAPHER: This concludes
14 today's proceedings. Total number of
15 videos used is five. We're off the record
16 at 6:36.

17 (Time noted: 6:36 p.m.)
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21 -----
22 [REDACTED] Ph.D.
23 Subscribed and sworn to before me
24 this day of 2022.
25

C E R T I F I C A T E

STATE OF NEW YORK)
) Ss.:
COUNTY OF NEW YORK)

I JEFFREY BENZ, a Certified Realtime Reporter, Registered Merit Reporter and Notary Public within and for the State of New York, do hereby certify:

That [REDACTED] Ph.D., the witness whose examination is hereinbefore set forth, was duly sworn by me and that this transcript of such examination is a true record of the testimony given by such witness.

I further certify that I am not related to any of the parties to this action by blood or marriage; and that I am in no way interested in the outcome of this matter.

IN WITNESS WHEREOF, I have hereunto set my hand this 11th of May, 2022.



JEFFREY BENZ, CRR, RMR

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-----EXHIBITS-----

| NUMBER | DESCRIPTION | PG | LN |
|------------|---|-----|----|
| Exhibit 13 | Dr. ████████ February 28, 2022, supplemental expert report | 8 | 13 |
| Exhibit 14 | Article entitled "The Econometrics of Financial Markets" | 117 | 19 |
| Exhibit 15 | Table of abnormal negative return dates | 152 | 17 |
| Exhibit 16 | Results of each of Dr. ████████ 20 models with respect to predicted returns for May 16, 2017 | 159 | 15 |
| Exhibit 17 | Document describing all of the days in which Dr. ████████ regression analysis identified a statistically significant abnormal price return in XRP | 172 | 20 |

PREVIOUSLY MARKED:

| NUMBER | DESCRIPTION | PG |
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| Exhibit 1 | Amended expert report of ██████████ | 6 |
| Exhibit 2 | Dr. ████████ November 12, 2021, rebuttal report | 7 |

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WITNESS DIRECTED NOT TO ANSWER:

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1 ERRATA SHEET

2 Case Name:

3 Deposition Date:

4 Deponent:

5 Pg. No. Now Reads Should Read Reason

6 _____

7 _____

8 _____

9 _____

10 _____

11 _____

12 _____

13 _____

14 _____

15 _____

16 _____

17 _____

18 _____

19 _____

20 _____

Signature of Deponent

21

22 SUBSCRIBED AND SWORN BEFORE ME

23 THIS _____ DAY OF _____, 2022.

24 _____

25 (Notary Public) MY COMMISSION EXPIRES: _____